

PETROLEUM REPORT INDONESIA  
2007 – 2008



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## **Foreword**

The Embassy would like to thank the Ministry of Energy and Mineral Resources, particularly the Directorate General of Oil and Gas (MIGAS), for supplying statistics, without which this report would not have been possible. The Embassy would also like to acknowledge the cooperation of Indonesia's production sharing contractors for current data and helpful suggestions to improve the accuracy of this report.

The intent of this report is to provide a summary of Indonesia's oil and gas sector in an effort to assist government policy makers and private sector companies better understand this important market. The report does not necessarily reflect the view of the U.S. Government. The Embassy has attempted to obtain the most accurate data from Indonesian Government sources. However, statistics drawn from different sources often display inconsistencies. This is the case between several tables in the appendices. To the extent possible, we have tried to indicate the source of the information. This report uses an exchange rate of Rp 9,150 to one U.S. dollar, unless otherwise indicated. Finally, statistics are often revised at a later date. The Embassy plans to publish a mid-year supplement to this report in 2009, containing end of year oil and gas data for 2007 and 2008.

The full report is also available on the U.S. Embassy website, [www.usembassyjakarta.org](http://www.usembassyjakarta.org).

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## GLOSSARY

ADB	Asian Development Bank
ADO	Automotive Diesel Oil
Avgas	Aviation Gasoline
Avtur	Aviation Turbine fuel used by turboprops and jet aircraft.
BBM	Oil-Based Fuel
BPS	Badan Pusat Statistik (National Statistical Bureau)
BCF	Billion Cubic Feet
B/D	Barrels per Day
BI	Bank Indonesia (Indonesia's central bank)
BLC	Bonny Light Crude
BOE	Barrels of Oil Equivalent
BTU	British Thermal Unit
CIF	Cost, Insurance and Freight
CNOOC	China National Offshore Oil Company
DPK	Dual Purpose Kerosene
EIB	European Investment Bank
EOR	Enhanced Oil Recovery – contract used for established producing fields with the intent of applying advanced technology to increase recovery in reservoirs
FO	Furnace Oil
FOB	Free on Board
GDP	Gross Domestic Product
HOMC	High Octane Motor Component
HSFO	High Speed Fuel Oil
IDO	Industrial Diesel Oil
ILC	Iranian Light Crude
JOA/JOB	Joint Operating Area/ Joint Operating Body – joint venture arrangements where the contractor participates as a 50:50 partner with Pertamina
JP4/JP5	Jet Fuel
LNG	Liquefied Natural gas
LOMC	Low Oil Motor Gas Component
LPG	Liquefied Petroleum Gas
LSWR	Low Sulphur Waxy Residue
MMBTU	Million British Thermal Unit
MIGAS	Directorate General of Oil and Gas in the Ministry of Energy and Mineral Resources
Mogas	Motor Gasoline

MT	Metric Tons
On/Off	Onshore/Offshore
OPEC	Organization of Petroleum Exporting Countries
Pertamina	Perusahaan Tambang Minyak Negara (Indonesia's National Oil Company)
PGN	Perusahaan Gas Negara (Indonesia's National Gas Company)
PSC	Production Sharing Contract – cooperation contract for oil and gas exploration and exploitation between BPMigas and private investors (which can include private foreign and domestic companies as well as PT Pertamina)
SPBX	Special Point Boiling X (type of fuel oil)
SSWJ	South Sumatra West Java
SLC	Sumatran Light Crude
TAC	Technical Assistance Contract - variation of a PSC used for established producing areas, usually covering exploitation only.
TSCF	Trillions of Standard Cubic Feet
WB	World Bank

## EXECUTIVE SUMMARY

Indonesia ranked twenty-first among world oil producers, with approximately 1.3% of the world's daily production in 2006. In 2006 Indonesia produced an average 1,005,810 barrels per day (bpd) of petroleum crude and condensate, according to government figures. According to the unofficial government statistics, Indonesian production fell to 912,000 bpd in 2007.

Indonesia's production of crude oil and condensate continues its multi-year trend of gradual decline from a high of 1.5 million bpd in 1999 to 1.25 million bpd in 2002, 1.15 million bpd in 2003, 1.09 million bpd in 2004, and 1.06 million bpd in 2005. Indonesia's proven oil reserves are approximately 4.44 billion barrels, according to official data.

Indonesia ranks eighth in world gas production, with proven reserves of 93.95 trillion cubic feet (TSCF) in 2006. Proven reserves fell nine percent in 2006 compared with 2005. Indonesia produced 2.95 TSCF in 2006, down 1% from 2005. Minister of Energy and Mineral Resources Purnomo Yusgiantoro said in January 2008 that the government is targeting natural gas production to reach 1.169 barrels of oil equivalent per day (boepd), up marginally from 2007 output of 1.120 boepd.

Indonesia lost its status as the world's largest exporter of liquefied natural gas (LNG) to Qatar in 2006. Indonesia produced 22.4 million tons of LNG in 2006. In 2006, the government announced a policy to re-orient natural gas production to serve domestic needs. As a result, Indonesia's share of the world LNG market has shrunk from 18.8% in

2004 to 14% in 2006. Rapid rates of new production in Qatar, Australia and Russia are likely to continue to erode Indonesia's position.

Despite the gradual decline in oil production, the industry remains a key sector in Indonesia's economy that generates strong cash flows. In 2006 oil and gas generated \$21.2 billion in government revenue, 22% of exports, and 24% of the government's budget. Though significant, this contrasts starkly with 1990, when the oil and gas sector contributed 43% of export earnings and 45% of government revenues.

In April 2008 executive and legislative branch representatives agreed on a revised budget that targeted 927,000 bpd in production during 2008. That budget also raised the assumed oil price to \$95/barrel.

As a symbol of its commitment to sound macroeconomic policy, the government reduced fuel subsidies across the board first in March 2005 and again in October 2005. High global oil prices raised the actual 2005 fuel subsidy to Rp. 76.5 trillion, however. Since then continued sustained high world prices and the government's policy to maintain existing subsidies have swamped the savings realized in 2005, and Indonesia was again forced to raise fuel prices in 2008. The government subsidizes about 60 percent of the fuel consumed in Indonesia.

In its mid-year budget revision for FY 2008, the government asked for 180.3 trillion rupiah for fuel subsidies (\$19.7 billion), an increase of 294 percent from the original request of 45.8 trillion rupiah in 2007.



Upstream and downstream oil and gas deregulation continues as required by Law 22/2001, which replaced the 1960 Oil and Gas Law and the Law for Pertamina 8/1971. The law mandated the end of Pertamina's monopoly over downstream oil distribution and marketing of fuel products and shifted regulatory functions to the central government. The government issued the upstream and downstream implementing regulations in 2004.

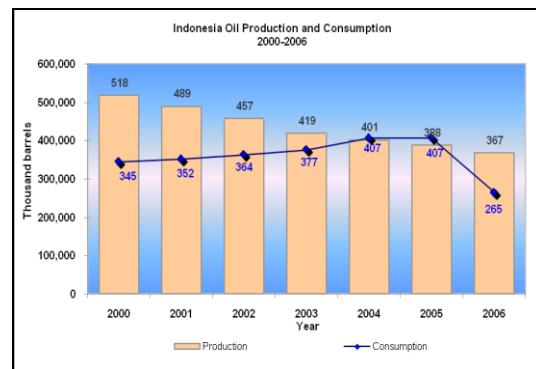
The law created two new governmental bodies: the Upstream Executive Body (BP Migas) that assumed Pertamina's upstream functions and the Downstream Regulatory Body (BPH Migas) that supervises downstream operations. BP Migas commenced operations in July 2002, taking over Pertamina's upstream regulatory functions and management of oil and gas contractors. BPH Migas started work in December 2002.

In May 2006 Indonesia suffered a major environmental incident when a mudflow began from a wellhead at the Brantas PSC in East Java, which at the time belonged to Energi Mega Persada. The company contends that unrelated seismic activity caused the wellhead blow out, not negligent drilling practices, as some community activists and NGOs charged. Roughly 50,000 people have been displaced and 30 factories have been forced to shut down, according to government information. The mudflow has caused approximately 7.3 trillion (\$797.8 million) in infrastructure damage through 2007, according to GOI estimates. Geologic experts say the mudflow may continue for years or perhaps even decades.

#### In 2005-2006

- The dollar value of oil and gas exports increased to \$21.2 billion in 2006 compared with \$19.2 billion in 2005, \$17.6 billion in 2004, and \$15.2 billion in 2003.
- Oil and gas imports also increased to \$18.98 billion in 2006 compared with \$17.4 billion in 2005, \$12.1 billion in 2004, and \$8.4 billion in 2003.

#### Crude Oil



#### 2006

Proven Reserves: 4.4 billion barrels  
 Production: 1.006 million bpd  
 Export revenue: \$21.2 billion

Indonesia's crude oil production declined 5% in 2006 to an average of 1.006 million bpd. In 2005, Indonesia produced an average of 1.06 million bpd. Falling output by most of the country's major producers accounted for the 56,000 bpd production drop in 2006. Foreign PSCs accounted for 82% of Indonesia's crude output in 2006.

Petroleum companies increased their exploration spending by 4.7 percent in 2004 to \$5.56 billion from \$5.31 billion in 2003. As this publication went to press, official data on exploration spending for 2005 and 2006 was not available. The number of new exploration wells drilled

in 2006 was down significantly to 35 from 68 in 2005, both of which are a precipitous decline from the 145 wells drilled in 1998.

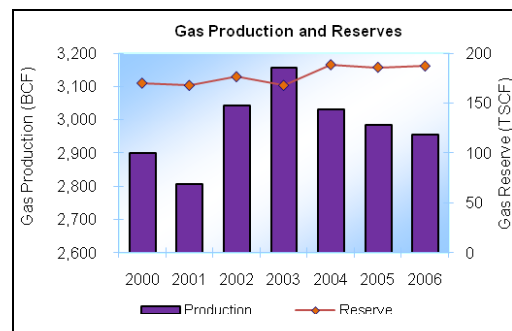
Indonesia awarded nine oil and gas blocks in March 2007, compared with 27 in June 2006, 9 in 2005, 16 in 2004, and 15 in 2003. Major international firms, including U.S. companies, expressed strong interest in the 2006 and 2007 blocks on offer.

Indonesian crude producers continued to profit from high world oil prices, which averaged \$68.93 per barrel in 2007 for benchmark SLC and \$64.28 in 2006, up sharply from \$53.10 in 2005 and significantly above the 2004 average of \$36.60 and the 2003 price of \$18.00. The outlook remains strong in 2008 with prices averaging well over \$100 per barrel in the first half of the year.

OPEC decided to increase oil production in July 2005 and consequently increased Indonesia's November 2003 quota of 1.270 million to 1.451 million bpd. Indonesia does not benefit from the cartel's decision, however, since it has produced significantly below this level for the last eight years.

Indonesia's major crude oil customers in 2006 (in rank order) were Japan, South Korea, Australia, China, and the United States. Indonesia's overseas markets have exhibited declining sales volumes since 2002. Exports declined 15% by volume from 2005.

## Natural Gas



### 2006

Proven Reserves: 93.95 TSCF  
 Production: 2.954 BSCF  
 Export revenue: \$10.5 billion

Indonesia has natural gas reserves of 274.3 TSCF – 93.95 TSCF proven and 93.14 TSCF possible. Possible reserves jumped 110% from 2005, according to government statistics. Indonesia's largest producers in 2006 (in order) were Total, Pertamina, ConocoPhillips, ExxonMobil, VICO, BP, Petrochina, and Chevron, all of which operate under production sharing contracts and account for 90 percent of the country's total production.

Indonesia has traditionally exported gas in the form of LNG, but started natural gas pipeline exports to Singapore in January 2001 and inaugurated the Sumatra-Singapore pipeline in late 2003. The major uses for Indonesia's natural gas are LNG and LPG production, domestic power generation, and fertilizer and petrochemical production.

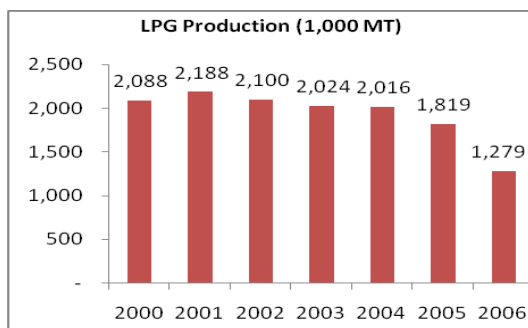
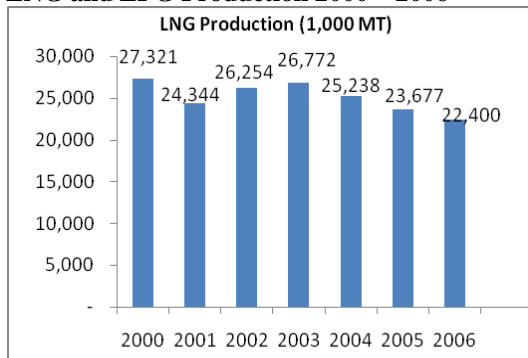
In 2006, the government announced a policy re-orienting natural gas production to serve primarily the domestic electric power market. Government ministers said Indonesia will honor all existing contracts but not necessarily renew current ones as they expire between 2008 and 2011.

## LNG and LPG

Indonesia lost its title to Qatar as the world's leading exporter of LNG in 2006, according to media reports and industry analysts. Its share of world production dropped from 18.8% in 2005 to 14% in 2006. Indonesia exported 46.1 million tons of LNG in 2006, according to government data. LNG production at Arun and Badak (Bontang) was 22.4 million metric tons (MT) in 2006, a decrease from the 2005 production level of 23.7 million MT. Japan, South Korea and Taiwan were the key markets for LNG.

LPG production declined precipitously to 1.279 million MT in 2006 from 1.818 million MT in 2005, while exports declined from 1.015 million MT in 2005 to 254,700 MT in 2006. Declining exports to Japan accounted for the largest drop from 865,000 MT in 2005 to 39,900 MT in 2006.

### LNG and LPG Production 2000 – 2006



BP said that it expects to begin LNG production at its Tangguh facility in Papua in late 2008 and begin deliveries to customers in early 2009. BP officials are considering additional production trains, according to media reports.

In late 2007, Pertamina told Japanese LNG buyers that it would only offer them a maximum of 3 million MT per year in their new 10-year contracts when the current ones totaling 12 million MT per annum expire in 2010.

In the first quarter of 2008, the government announced that it had terminated ExxonMobil's rights to develop the 46 TSCF off-shore Natuna D-Alpha gas field and appointed state oil company Pertamina to run the project. The government said ExxonMobil failed to show sufficient progress in developing the field. ExxonMobil officials pointed to their expenditure of approximately \$400 million for exploration activities and asserted its contract gave the firm the right to an extension until 2009. Industry analysts generally share the opinion that Pertamina has neither the financial nor technical expertise to develop the Natuna field on its own.

## Refining and Imports

Indonesia has an installed refining capacity of approximately 1.056 million bpd at nine state-run refineries. Capacity utilization was 90.8% through the end of 2006, down from 94.7% in 2004.

Indonesia's crude oil imports dropped sharply in 2006 to 116.2 million barrels from 148.5 million in 2004. Saudi Arabia, Brunei, and Nigeria are the major suppliers. Fuel product imports dropped to 133.4 million barrels in 2006, down

from 165.7 million in 2005 and 154.4 million in 2004.

Growing domestic consumption combined with limited capacity at Indonesia's nine refineries account for the sustained high levels of crude oil and fuel product imports since 2000.

Domestic fuel consumption was 42.1 million kiloliters (equivalent to 725,244 barrels of oil per day) in 2006, compared with 64.7 million kiloliters in 2005, a drop of 35%. Pertamina continues to retain its monopoly on the distribution of subsidized fuel throughout the archipelago due to lack of interest by other companies in assuming this public service obligation.

### **Petrochemicals**

The petrochemical industry has yet to recapture its pre-1998 dynamism. Indonesia completed no new plants during the past four years, and as a result they increased imports of petrochemical products. Lack of gas also hindered fertilizer production and resulted in the suspension of production at Pupuk Iskandar Muda, PIM I and the liquidation of the ASEAN Aceh Fertilizer plant (AAF) in 2003. However, the completion of the Tuban petrochemical project in 2006 signaled the stirrings of a slow recovery for the industry. Since 2005, Indian, Japanese, and Chinese investors have expressed strong interest in investing in this sector.

### **Oil Revenue Sharing**

On January 1, 2001, Regional Autonomy Law 22/1999 and Fiscal Decentralization Law 25/1999 came into effect. Law 25/1999 contains formulas for sharing revenue between the central government

and various regional authorities. On October 15, 2004, the GOI amended these laws with Regional Autonomy Law 32/2004 and Fiscal Decentralization Law 33/2004 to further clarify the roles of central and regional authorities. These new laws also changed the revenue sharing splits between the central government and regional authorities. They also contained more detailed procedures for revenue sharing and regional autonomy implementation. Regulation 55/2005, issued on December 9, 2005, implemented the new laws.

Revenue sharing is the division of funds from oil and gas revenues between central and local government. Oil revenue-sharing is based on net oil and gas revenue, after cost recovery and the deduction of the PSC's share but before tax. The allocation of funds for revenue-sharing is based on the actual, realized oil and gas revenue. This means that it is derived from oil revenues accounted from the state-owned oil company, Pertamina, plus any additional non-tax revenues obtained directly from oil producers, and based on the actual price received and quantity generated.

Revenue sharing in oil and gas was established by statute in accordance with Article 11, Law No. 33/2004 and GR No. 55/2005. The following are the changes in revenue sharing allocation for resource-related activities between the old (1999) and new (2004) laws:

### Shares of state revenue\* based on Law No. 25/1999

Type of revenue	Central Govt.	Province (%)	Regency
- Oil	100	-	-
- Natural gas	100	-	-
- Mining land rent	20	16.0	64.0
- Mining royalties	20	16.0	64.0
- Land/building tax	10	16.2	64.8
- Duties on land/building acquisition	20	16.0	64.0

### Shares of state revenue\* based on Government Regulation No. 55/2005

- Oil	85	3.0	12.0
- Natural gas	70	6.0	24.0
- Mining land rent	20	16.0	64.0
- Mining royalties	20	16.0	64.0
- Land/building tax	10	16.2	73.8
- Duties on land/building acquisition	20	16.0	64.0

\* State revenue refers to net oil and gas profits after PSC share and cost recovery are deducted.

Aceh and Papua, as special autonomy provinces, receive 70 percent of oil revenues and natural gas revenues created in their regions (Law No. 18/2001 and Law No. 21/2001, correspondingly).

With rising oil and gas prices, transfers to oil producing regions have more than doubled since 2003. Although revenues have increased substantially, they remain low compared to the increase in oil and gas prices during the same period.

A persistent problem has been the misunderstanding of the calculations of oil and gas revenues by sub-national government officials, which has led many regional administrations and their citizens to overestimate the value of future transfers. To clarify the regions' share of oil and gas revenues, the Ministry of Finance began the practice in 2005 to issue a yearly decree estimating the

allocation of oil and gas revenues to the all of the provinces, regencies, and cities.

### Major Events in Indonesia

Year	Events
1890	Telaga Said production field sold to a company that later merged to form Royal Dutch Shell. First production was in 1892.
1912	Standard Oil of New Jersey through its Dutch subsidiary received permission to explore for oil in South Sumatra.
1921	The Talang Akar field discovered, which proved to be the biggest find before WWII.
1942	Japanese took over most oil fields during WWII and slow production
1944	Caltex' Minas field discovered. Largest oil field in Southeast Asia
1945	Indonesia declared independence from The Netherlands
1961	Government signs first PSC, with Asamera for the Block A PSC in Aceh.
1962	Pan American Oil Company signed the first contract of work with Pertamina.
1962	Indonesia joined OPEC
1968	National oil companies Pertamina and Pertamina merged to form Pertamina
1978	First LNG plant entered production
2001	The Government revised Oil and Gas Law
2002	Upstream and Downstream bodies formed.
2003	Pertamina becomes a limited liability company.
2004	GOI issued upstream and downstream implementing regulation, Regulation No. 35 and 36 respectively.
2005	The first private retail fuel station opened in Indonesia.

## INSTITUTIONAL FRAMEWORK

*“All natural resources in the soil and the waters of the country are under the jurisdiction of the State and shall be used for the greatest benefit and welfare of the People.”*

-Article 33, Indonesian Constitution

The Indonesian Parliament (Dewan Perwakilan Rakyat – DPR) passed the oil and gas bill into law on October 23, 2001. The new law replaced Oil and Gas Law No. 44/1960 and Law for Pertamina No. 8/1971. It reduces the government's power over the petroleum sector and allows for open competition in the downstream oil and gas distributing and marketing area. The 2001 law authorizes the establishment of an implementation agency ("badan pelaksana") and regulatory agency ("badan peraturan") to assume state oil and gas company Pertamina's roles. The implementation agency has replaced Pertamina in managing Production Sharing Contracts (PSC) with private oil and gas companies, thus eliminating the conflict-of-interest inherent when upstream producer Pertamina regulated the activity of its competitors. The law also removed Pertamina's monopoly in the downstream sector with the regulatory agency assuming the responsibility for managing natural gas and domestic fuel distribution and supply.

The GOI generally met the law's stipulation that the two new agencies be established within one year of the law's enactment, and that Pertamina establish itself as a limited liability company ("persero") within two years (see below).

Originally, Pertamina was to have maintained its responsibility for domestic fuel supply and distribution only until December 31, 2006. However due to lack of interest by other companies in assuming the public service obligation, Pertamina will likely continue in this role at least through 2008.

Existing PSC's are grandfathered and in effect until expiration of the contract. By the end of 2003, the GOI had issued three of five required implementing regulations under the law covering Pertamina's transition to a limited liability company, and the establishment of the implementing and regulatory agencies. By October 2004, the government issued the remaining two implementing regulations, on the upstream and downstream sectors. All energy activities dealing with petroleum and gas fall under the Ministry of Energy and Mineral Resources, which is charged with creating and implementing Indonesia's energy policy. The Ministry of Energy and Mineral Resources is divided into several directorates, with the Directorate General of Oil and Gas (MIGAS) responsible for all aspects of petroleum industry development, including employee training and promulgating regulations.

### BP Migas

On July 16, 2002, President Megawati signed Government Regulation No 42/2002, establishing an implementing body for oil and gas upstream operations, Badan Pelaksana Minyak dan Gas Bumi (BP Migas), as required by Oil and Gas Law No 22/2001. This upstream implementing body has taken over Pertamina's regulatory functions and

responsibilities in managing oil and gas contractors. BP Migas has managed upstream regulatory activities since mid-2002. However it lacked implementing regulations until 2004 when the GOI issued Regulation 35 under the Oil and Gas Law 22/2001.

BP Migas' main responsibilities are to: 1) provide recommendations to the Minister in preparing and offering work areas and cooperation contracts; 2) sign cooperation contracts; 3) control upstream business operations and 4) appoint sellers of the government's share of oil and gas. BP Migas is a non-profit state legal entity and acts on behalf of the government as party to the cooperation contract with business entities. At the same time it also controls all oil and gas business operations.

BP Migas is led by a chairman and vice chairman, assisted by five expert staff and four main operational divisions—planning, operations, finance and marketing, and general affairs. The chairman is appointed by the President, based on the recommendation of the Minister of Energy and Mineral Resources after approval by the House of Representatives (DPR). The Chairman must periodically report to the President (every six months or as requested), via the Minister of Energy and Mineral Resources. The agency must also report and give copies of signed Production Sharing Contracts to the DPR.

## **BPHMigas**

On December 30, 2002 President Megawati Sukarnoputri signed Government Regulation (PP) 67/2002 establishing a new downstream regulatory body, the Badan Pengatur Hilir Minyak dan Gas Bumi (BPH Migas), which

assumed the role of Pertamina in controlling downstream activities. BPH Migas was given the responsibility to regulate, develop and supervise the downstream industry. However BPH Migas lacked implementing regulations until 2004 when the GOI issued Regulation 36 for the downstream activities laid out in Oil and Gas Law 22/2001.

BPH Migas' broad responsibilities are to: 1) regulate and determine the supply and distribution of oil-based fuel; 2) regulate the transmission and distribution of natural gas; 3) allocate fuel to meet national fuel oil reserve goals; 4) plan the use of oil and gas transportation and storage facilities; 5) set gas pipeline tariffs; 6) set natural gas prices for household and small consumers; 7) recommend pipeline levies; and 8) set the price of pipeline rights.

BPH Migas has the regulatory and development responsibilities to: 1) issue business licenses; 2) determine fuel types and standards for retail sale; 3) formulate strategic reserves policies; 4) determine price formulas for subsidized fuel; 5) protect occupational health and safety; 6) ensure environmental protection; and 7) promote community development. The agency is also charged with developing the master plan for national gas transmission and distribution. It also ensures the availability and distribution of fuel oil, and monitors reserves, market share and trading volumes.

BPH Migas is a smaller body than its upstream counterpart, BP Migas. BPH Migas consists of a committee of nine (one Chairman and eight members). Committee members are appointed by the President, based on the recommendation



of the Minister of Energy and Mineral Resources after approval by the House of Representatives (DPR). The Chairman must periodically report to the President (every six months or as requested), via the Minister of Energy and Mineral Resources.

## **Pertamina**

On June 18, 2003, President Megawati Sukarnoputri signed government regulation (PP) No. 31/2003 to transform the state oil and gas company Pertamina into a limited liability company (persero), although it remains 100% government-owned. The objective of the new regulation was to establish a competitive and efficient entity, thereby increasing economic activity and the welfare of the people.

Under the new regulation, all state assets belonging to Pertamina are to serve as the capital of the new entity. The Minister of Finance based on a joint evaluation by the Minister of Energy and Mineral Resources and the Minister of Finance determined the amount of capital allocated to the new entity. The restructured Pertamina has authority from the government to supply fuel oils for domestic consumption, with compensation for subsidy pricing to be provided by the government. The regulation also gave Pertamina all the state's geothermal power assets with the proviso that they be handed over within two years to a new subsidiary.

In February 2008, Pertamina shareholders approved a plan to take over PT Geodipa and combine it with PT Pertamina Geothermal Energy to form the new subsidiary called for under the 2001 law.

Pertamina contributes significantly to Indonesia's petroleum output. It ranked as the second highest in crude oil and natural gas production in 2006, according to government data. Pertamina executives have expressed their determination to enhance Pertamina's position in the newly deregulated upstream sector.

In the downstream sector, Pertamina will likely maintain its monopoly on the distribution of subsidized fuel products throughout the archipelago until December 31, 2008. President Susilo Bambang Yudhoyono delayed full downstream fuel market deregulation by issuing Regulation 71/2005 on November 16, 2005, which extended Pertamina's public service obligation (PSO) due to the lack of interest by other qualified companies.

In 2004, Pertamina suspended its operation in Block 3, Western Desert, Iraq due to political uncertainty. The company, however, says that it wishes to resume exploration activity there as soon as the contract is ratified and the environment is permissive. Pertamina also ventured into Libya, where it won two exploration contracts in October 2005 for Block 17-3 on the Mediterranean Sea and Block 123-3 on the Sahara desert. Pertamina said it targeted Libya for investment to increase its resource base and to develop professionalism and credibility in the global oil business.

Pertamina reported a provisional 21% jump in earnings in 2007, boosted by continued record high global oil prices. Pertamina executives told investors in January 2008 that the firm is expecting to post a net profit of 23 trillion rupiah (\$2.51 billion) for 2007 compared to 19 trillion (\$2.07 billion) in 2006. The



company said its upstream subsidiary Pertamina E&P is targeting production levels of 300,000 bpd of crude oil and 2.4 BSCF per day of natural gas by 2012.

## **Government Agreements and Contracts**

Indonesia has two categories of agreements and contracts for the petroleum industry. The first category refers to the bundle of rights and obligations granted to an investor to invest in cooperation with the GOI in oil and gas exploration and exploitation. These types of contracts are the Production Sharing Contract (PSC), the Technical Assistance Contract (TAC), and the Enhanced Oil Recovery (EOR) contract, defined as follows:

### ***Production Sharing Contracts***

- A cooperation contract for oil and gas exploration between BP Migas and a private investor (which includes foreign and domestic companies, as well as PT Pertamina);
- BP Migas is the supervisor or manager of the PSC;
- Investors are participating interest holders and contractors;
- The government take is under a production sharing arrangement whereby the GOI and the contractors take a split of the production measured in revenue based on PSC-agreed percentages;
- Operating costs are recovered from production through contractor cost formulas as defined by the PSC;
- The contractor has the right to take and separately dispose of its share of oil and gas;

- Title of the hydrocarbons passes to the contractor at the export or delivery point.

### ***Technical Assistance Contracts***

- Variation of a cooperation contract, or PSC;
- Typically used for established producing areas and therefore usually covers exploitation only;
- BP Migas is the supervisor or manager of the TAC;
- Operating costs are recovered from production;
- The Contractor does not typically share in production;
- The TAC can cover both exploitation and exploration if it involves an area where the GOI has encouraged exploration;
- In accord with Oil and Gas Law 22/2001, existing TACs will not be extended.

### ***Enhanced Oil Recovery***

- Variation of a cooperation contract, or PSC;
- Used for established producing fields with the intent of applying advanced technology to increase the recovery of hydrocarbons in the reservoirs;
- Pertamina is usually a participant, along with investors; collectively they are the Contractor;
- BP Migas is the supervisor and manager of the EOR;
- Operating costs are recovered from production and typically capped at a percentage. In some cases, the incremental oil lifted from an EOR operation may be shared on a production sharing basis;
- In many cases, the EOR may also include provisions concerning how the

parties will conduct petroleum operations.

In addition to contracts that give bundles of rights to explore and exploit, the participants in the PSC, TAC or EOR may also enter into separate agreements to discuss how they are going to conduct petroleum operations. These are known as Joint Operating Agreements (JOA) and Joint Operating Bodies (JOB), defined as follows:

#### ***Joint Operating Agreements***

- A separate agreement in addition to the cooperation contract;
- Governs the relations of the participating interest holders, defining their rights and obligations, and describing the procedures the Contractors will abide by;
- The JOA typically includes: 1) the scope of operations; 2) designation, rights and obligations of the operator; 3) establishment of an Operating Committee; 4) production disposition; 5) relinquishment, withdrawal and assignment; 6) confidentiality; 7) force majeure; and 8) dispute resolution and choice of law.

#### ***Joint Operating Bodies***

- Typically part of the JOA;
- Governs the operations on behalf of the participating interest holders by establishing a non-legal entity, the JOB, to conduct petroleum operations;
- Representatives of the participating interest parties appoint representatives to the JOB;
- The JOB prepares an operating work program and budgets and carries out operations pursuant to the JOB agreement and the cooperation contract;

- Participating interest holders remain the Contractors;
- JOAs are supervised by BP Migas.

### **Fiscal Decentralization Law**

With implementation of a new fiscal decentralization law in January 2001, revenue-sharing formulas came into effect that directed 15 percent of the Indonesian Government's net oil revenues and 30 percent of its net natural gas revenues to provincial and district governments. The GOI's net oil and gas revenues refer to profit *after* cost recovery and deduction of the PSC share. Of the 15 percent of the oil revenue flowing to the regions, 6 percentage points will go to the regency of origin (where the PSC is located), 6 percentage points will be shared among the other regencies in the province, and 3 percentage points will go to the provincial government. The same relative shares apply to gas revenues – 12 percent to the regency of origin, 12 percent among the remaining regencies and 6 percent to the provincial government.

### **OPEC**

Indonesia joined OPEC in 1962 as an active member and hosted important OPEC conferences in 1964, 1976, 1980 and 1997. OPEC member countries meet at least twice a year to coordinate their production policies in light of market fundamentals. The Organization of Petroleum Exporting Countries (OPEC) produced about 42 percent of the world's oil and 50 percent of the oil traded internationally in 2006. During 2004, Indonesian Minister of Energy and Mineral Resources (MEMR) Purnomo Yusgiantoro held the rotating OPEC presidency.

The 13-member oil cartel last met in March 2008 and decided to leave official output targets unchanged at 29.673 million bpd for the 12 countries bound by output agreements. OPEC rebuffed requests from consuming countries for additional oil despite almost daily new record highs for petroleum during 2007 and 2008.

Although OPEC raised quotas in 2004 and 2005, it cut back production after that, most significantly in February 2007. These cutbacks raised prices significantly on the world markets. With its production in decline, Indonesia was never able to take advantage of its 1.451 million bpd quota. Its new dependence on imports for an increasing share of its energy needs have strained Indonesia's relationship with OPEC.

**OPEC Quota (in 1,000 bpd)**

Members	Jul 05	Nov 06	Feb 07
Algeria	894	59	25
Indonesia	1,451	39	16
Iran	4,110	176	73
Kuwait	2,247	100	42
Libya	1,500	72	30
Nigeria	2,306	100	42
Qatar	726	35	15
S. Arabia	9,099	380	158
UAE	2,444	101	42
Venezuela	3,223	138	57
<b>Change</b>		<b>1,200</b>	<b>500</b>
<b>Production Target</b>	<b>28,000</b>	<b>26,300</b>	<b>25,800</b>

Source: OPEC

Public speculation on withdrawal from OPEC began in 2004, but the Ministry of Energy and Mineral Resources stated for years that Indonesia intended to remain a cartel member despite its falling net oil export volumes. As Indonesia found it impossible to maintain a net exporter status, industry observers questioned whether the country should keep its OPEC

membership. In May 2008, President Yudhoyono called for a public review of Indonesia's membership. At the end of May 2008, MEMR Purnomo Yusgiantoro informally told the press that the decline of oil production since 1995 had triggered Indonesia to pull out of OPEC. Indonesia's OPEC governor indicated in August 2008 that Indonesia would withdraw from OPEC, but only temporarily. Indonesia had already paid its OPEC dues for the full year of 2008.

## Other Professional Bodies

### IPA

Indonesian and foreign oil companies operating in Indonesia established the Indonesian Petroleum Association (IPA) in 1971 in response to growing foreign interest in the Indonesian oil sector. Contractors and the government meet frequently to discuss matters such as production ventures and energy economics. The IPA's objective is to use public information to promote the exploration, production, refining and marketing aspects of Indonesia's petroleum industry.

### IGA

Pertamina and key gas producers Mobil and Huffco sponsored the establishment of the Indonesian Gas Association (IGA) in 1980. The main objective of IGA is to provide a forum to discuss matters relating to natural gas and to advance knowledge, research and development in the areas of gas technology. IGA also aims to promote the development of infrastructure and cooperation among producing, transporting, consuming and regulatory segments of the gas industry.

The IGA and the IPA sponsored  
Indonesia's membership in the Permanent  
Council of the World Petroleum Congress  
(WPC).

## CRUDE OIL

### Reserves and Production

In 2006 Indonesia ranked twenty-first among world oil producers, with approximately 1.3% of the world's daily production. The GOI places Indonesia's proven oil reserves at approximately 4.44 billion barrels, according to official data. These figures are 13% lower than in 2000. Oil exports were \$10.9 billion in 2006, up from \$10.04 billion in 2005. Total oil and gas exports (including LNG) were \$21.41 billion in 2006, compared with \$19.2 billion in 2005, and represented 22% of Indonesia's export earnings, down from 23% in 2005.

In 2006 Indonesia produced an average 1,005,700 barrels per day (bpd) of petroleum crude and condensate, according to government figures. Production fell to 912,000 bpd in 2007, according to unofficial government data. Indonesia's production of crude oil and condensate continues its multi-year trend of gradual decline from 1.062 million bpd in 2005, 1.09 million bpd in 2004, 1.15 million bpd in 2003, and 1.25 million bpd in 2002. Indonesia has produced well below its OPEC crude production quota of 1.451 million bpd (without condensate), as a result of declining investment and maturing oil fields.

In 2006 Indonesia's 1,005,700 bpd of daily production consisted of 883,200 bpd of crude and 122,500 bpd of condensate. This was a 29 percent drop from 2000. Almost all oil producers reported flat or declining output in 2006. Pertamina was an exception, increasing output from 50,700 bpd in 2005 to 94,300 bpd in 2006, an increase of 46%. Continued sluggish

investment and a decrease in new exploration were key factors behind the decline. PT Chevron Pacific Indonesia's production, which accounted for 48.3% of the country's crude oil production in 2006, declined 7.5% from 525,200 bpd in 2005 to 485,800 bpd in 2006. Pertamina passed Total Indonesia to become the second largest oil producer in 2006 with 9.4% of production.

In 2006 the GOI renewed its commitment to increase output in its energy blueprint and set a production target of 1.3 million bpd by 2009. In May 2008 Vice President Jusuf Kalla revised the target to 1.2 million bpd by 2010. Production increased in 2008, but few industry observers believe Indonesia can achieve those production goals without significant changes to the system of incentives and regulations for production sharing contractors.

**Table: Crude and Condensate Production by major producers (1,000 bpd)**

Company	2005	2006	Change (%)
Chevron (Caltex)	471.4	446.8	-5%
Chevron (Unocal)	53.8	39.0	-27%
Pertamina	50.7	94.3	86%
Total	88.0	90.9	3%
ConocoPhillips	73.0	64.1	-12%
CNOOC	65.4	57.0	-13%
Medco(Exspan)	54.2	45.2	-17%
Petrochina	42.4	43.6	3%
BP	24.8	26.6	8%
BumiSiakPusako	27.3	25.7	-6%
Others	111.2	72.5	-35%
<b>Total</b>	<b>1,062.1</b>	<b>1,005.6</b>	<b>-5%</b>

## Imports

Indonesia remains a significant importer of crude oil. Indonesia's crude oil imports dropped sharply in 2006 to 116.2 million barrels from 148.5 million in 2004. Saudi Arabia, Brunei, and Nigeria are the major suppliers. Fuel product imports dropped to 133.4 million barrels in 2006, down from 165.7 million barrels in 2005 and 154.4 million barrels in 2004. In term of value, oil imports in 2006 increased 5% to \$17.96 million, compared with \$17.08 million in 2005.

## Exploration and Investment

Of an estimated 60 oil basins, approximately 22 have been extensively explored. Most oil exploration is currently being carried out in the basins of Western Indonesia under PSCs. The bulk of Indonesia's oil reserves are located onshore and offshore in Central Sumatra and

Kalimantan. The GOI has placed increased emphasis on developing oil reserves in remote locations, such as Papua, where

proven and potential reserves are estimated at 109.1 million barrels.

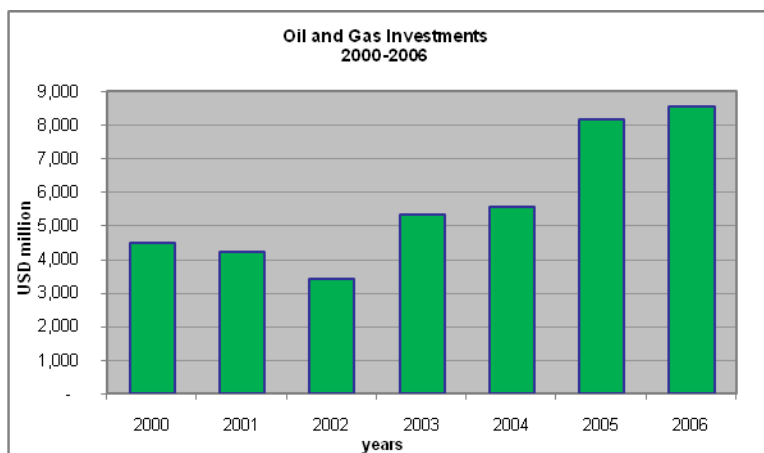
The oil and gas industry today faces several crucial problems, particularly in the upstream sector, due to aging oil and gas assets and investment climate uncertainties. Officials hope oil contractors will aggressively increase

exploration activities to look for new reserves. With no significant oil discoveries in western Indonesia in the last 10 years, the government hopes eastern Indonesia's frontier and deep-sea areas may contain sizable oil reserves.

The number of exploration drilling wells completed in 2006 dropped sharply to 35, compared with 68 in 2005. In 1998, explorers drilled 145 wells. The success ratio (successful wells versus wells drilled) reached 45.7% in 2006, up slightly from 43.8% percent in 2005.

### *Seismic Activities*

According to MIGAS, a total of 14,962 kilometers of combined 2-D and 3-D seismic activities were carried out in 2006, continuing the steady downward trend since the 1997 peak of 469,198 kilometers.



### *Exploration Blocks Awarded*

The government awarded 9 oil and gas exploration blocks in 2007, 27 blocks in 2006, 9 in 2005, 16 in

2004 and 15 in 2003.

The direct bidding round is one of the Government's revamped procedures for exploration and production contracts in a bid to increase their attractiveness.

Previously, oil and gas companies could only receive a concession through an official tender.

Now, the government accepts proposals for blocks without waiting for a formal bidding session. Under this special bidding process, after a company applies to acquire a new exploration block, the government invites other bidders to participate. If no other bidder emerges within a set timeframe, the government grants the block to the sole bidder.

The government also offered new, more attractive terms and conditions for new exploration blocks in 2005. Winning PSCs would get between 20 and 35 percent splits for oil and between 30 and 40 percent for gas. Under previous PSC terms, companies generally receive a 15 percent split for oil and 30 percent split for gas. The government also set first tranche petroleum (FTP) obligations at 10 percent.

Indonesia's production continues to decline due to lack of investment and aging fields. At the same time, several political leaders throughout 2007 and 2008 have voiced concern regarding the escalating share of expenditures related to reimbursing contractors for their costs of exploration and production as stipulated in their PSCs. The Ministry of Energy and Mineral Resources enacted a negative list of cost recovery in June 2008, prohibiting many costs that had previously been allowed.

BP Migas chairman R. Priyono said in May 2008 that he will seek to link increases in cost recovery with increased production. A 2008 report by BPMigas said the government paid \$8.33 billion to oil and gas producers in 2007 for recovery

costs, a rise of 6.4%. In 2006 and 2005, the government paid \$7.8 billion and \$7.3 billion, respectively. Industry analysts say rising recovery costs are driven by increased competition for equipment and qualified personnel due to record petroleum prices, the significantly higher costs of maintaining production from aging wells, and new exploration and production in deepwater and remote locations.

## **Mergers and Acquisitions**

U.S.-based Chevron acquired Unocal in August 2005, strengthening its position as Indonesia's largest oil producer. Caltex and Unocal both assumed the Chevron name but continue to conduct operational activities under separate subsidiaries.

In August 2004, Indonesia's largest oil and gas company, Medco Energi International completed acquisition of Novus Petroleum Limited, a company listed in the Australian Stock Exchange with assets in the Middle East, United States, Australia and Indonesia. The acquisition led to the change of Novus' directors as it cut its global assets.

### **Mergers**

- Chevron and Unocal, Aug 2005.
- Conoco & Phillips – ConocoPhillips, Sept 2002.
- Chevron & Texaco – ChevronTexaco, Sept 2001
- Santa Fe Snyder & Devon – Devon Energy Corp, Aug 2000.
- BP Amoco & Arco – BP, Apr 2000.
- TotalFina & Elf – TotalFinaElf Sam, Feb 2000.
- Exxon & Mobil – ExxonMobil Corp, Nov 1999.
- El Paso & Sonat – El Paso Energy Corp, Oct 1999.

- Total & Fina – TotalFina, Jun 1999.
- Lasmo & Monument – Lasmo Plc, Jun 1999.
- Santa Fe & Snyder – Santa Fe Snyder Corp, May 1999.
- Nisseki & Mitsubishi Oil Co. – Nisseki Mitsubishi Abushild, Apr 1999.
- Kerr McGee & Oryx – Kerr McGee Corp, Feb 1999.
- BP & Amoco – BP Amoco Plc, Jan 1999.
- British Borneo & Hardy – British Borneo Oil & Gas Plc, Oct 1998.
- Ocean Energy & Seagull – Ocean Energy Inc, Jun 1997.

### **Takeovers**

- Medco Energi – Novus Petroleum, August 2004
- Conoco – Gulf Indonesia Resources, July 2002
- CNOOC – YPFMaxus, Jan 2002.
- PetroChina – Devon Energy, April 2002
- Husky Oil Ltd. – Renaissance energy, Aug 2000.
- Canadian Natural Resources – Ranger Oil, July 2000.
- Fortune (Indo Pacific) – GFB Resources (Java) Ltd, Jul 2000.
- Agip – British Borneo, May 2000.
- Singapore Petroleum Company Ltd – LL&E Indonesia, Jan 2000.
- Maple/Matrix – GFB Resources (Langsa) Ltd, Jan 2000.

### **The Future**

Pundits had forecast Indonesia's imminent shift from net oil exporter to net importer for several years. Those predictions finally were realized on a monthly basis in 2004. A steady decline in production, coupled with lower exploration investment levels, accelerated the transition to net importer earlier than forecasters has predicted. However, with substantial reserves of natural gas and

coal, Indonesia remains a net energy exporter.

The March 2006 agreement between ExxonMobil and Pertamina to begin development of the Cepu bloc and the drop in domestic petroleum consumption following the 2005 and 2008 price hikes might be a step toward bringing Indonesia back into the net exporter camp, although more production is necessary. To maintain momentum, industry observers encouraged the GOI to implement legislation and policies to rationalize the use of Indonesia's energy resources. The government, however, has not made any fundamental changes to the subsidized fuel regime, despite the price hikes.

A 2005 industry survey conducted by the IPA and PriceWaterhouseCoopers concluded that Indonesia's oil and gas industry is at a critical juncture. Survey participants lauded positive government efforts toward improving the investment climate in the upstream industry, such as improved fiscal incentives, the development of an overall energy blueprint, and an improving gas pipeline infrastructure.

Industry representatives said, however, that Indonesia should improve its fiscal terms for oil and gas production for both mature and frontier areas. Often the balance between risk and reward is generally viewed as insufficient to attract major exploration funds. These problems are exacerbated by small reserve accumulations and high infrastructure costs. To address these concerns, the Minister of Energy and Mineral Resources issued Regulation 8/2005 in April 2005, which gave contractors developing marginal oil field an additional 20% reimbursement in cost recovery. In its



2005 bidding round the government offered also a more favorable contractor production split of up to 70/30 (government/contractor) and up to 60/40 for oil and gas respectively.

As part of its Energy Blueprint in January 2006, Indonesia renewed its intention to achieve a production target of 1.3 million bpd by 2009. Industry leaders say that five actions by the GOI are crucial to reach this production target in the medium term:

- Harmonizing conflicting laws and regulations, including the timely implementation of regulations;
- Improving teamwork, coordination and cooperation among GOI entities;
- Implementing judicial reform;
- Changing the regulatory paradigm to a “shared economic interest” model;
- Having more predictability in allowed cost recovery; and
- Protecting contract sanctity.

## **PSC Update**

### ***Chevron***

Chevron Indonesia operations include former Caltex Pacific Indonesia (CPI) and Unocal assets which were consolidated after the merger of Chevron and Unocal in 2005. Chevron’s operations in Indonesia are geographically dispersed and include onshore exploration & production and self-use power generation in Sumatra, offshore production in Kalimantan, and geothermal and power operations in Java. In addition to these operations, Chevron holds a 25% non-operating interest in the South Natuna Sea Block B, operated by ConocoPhillips, and interests in several other exploration blocks.

Chevron produces nearly half of Indonesia’s crude oil production; in 2007, Chevron achieved a gross average daily oil-equivalent production of over 585,000 barrels of petroleum and condensate, a 20% increase compared with 485,800 bpd in the prior year. However, oil production averaged 470 MBOEPD equaling approx 172 MM barrels on an annual basis while gas averaged 336 MCFPD equaling approx 123 BSCF on an annual basis.

The majority of the firm’s oil production came from the Duri and Minas fields in the Rokan PSC (Production Sharing Contract) located in central Sumatra. Daily gross production from all of Sumatra operations are approximately 90 producing fields, averaged 425,000 barrels of crude oil and 54 million cubic feet of natural gas in 2007.

Chevron’s offshore operations are located in East Kalimantan with production from both shelf and deepwater assets. During 2007, daily gross production from Kalimantan Operations’ two producing PSCs (East Kalimantan and Makassar) averaged 34,000 barrels of oil and condensate and 192 million cubic feet of gas. In addition, Chevron continues to advance the development of its deepwater natural gas projects and has submitted the final Plan of Development to the Government of Indonesia for the projects located in Kalimantan’s Kutei Basin.

Chevron’s downstream activities include sales of paraxylene, benzene and fuel catalysts to refineries in Java, and the company enjoys a sizable domestic market share of lubricants and fuel additives.

In the electric power business, Chevron renamed Amoseas as Chevron

Geothermal Indonesia in 2004. The 110 MW Darajat III project achieved commercial operation in July 2007. From the Unocal merger, Chevron acquired another geothermal facility in Gunung Salak, Central Java. In addition, the company also operates a 300 MW co-generation facility in North Duri to support its Central Sumatra activities. Chevron says it is evaluating further expansion of its Darajat and Salak fields and is seeking opportunities to explore and develop new geothermal fields in Indonesia.

### ***ExxonMobil***

ExxonMobil was created from the merger of Exxon and Mobil in November 1999, leading to the consolidation of Exxon, Esso, and Mobil operations in Indonesia. ExxonMobil (EM) celebrated 100 years of doing business in Indonesia in 1998, including 30 years as a production-sharing contractor, 20 years as a producer of liquefied natural gas and 10 years as a producer of liquefied petroleum gas.

ExxonMobil has concentrated on two major projects in Indonesia since 2005: the Cepu oil and gas block in East and Central Java and the off-shore Natuna D-Alpha block.

In the first quarter of 2008, the government announced that it had terminated ExxonMobil's rights to develop the 46 TSCF off-shore Natuna D-Alpha gas field and appointed state oil company Pertamina to run the project. The government said ExxonMobil failed to show sufficient progress in developing the field. ExxonMobil officials pointed to their expenditure of approximately \$400 million for exploration activities and asserted its contract gave the firm the right

to an extension until 2009. Industry analysts generally share the opinion that Pertamina has neither the financial nor technical expertise to develop the Natuna field on its own. EM executives say they remain committed to a joint partnership with the GOI on the Natuna project, according to public and media statements by the company.

In March 2006, ExxonMobil and Pertamina signed a joint operating agreement (JOA) for the Cepu Banyu Urip oil and gas block. Production is likely to start in late 2008, according to company press statements. EM believes the Banyu-Urip field has an estimated resource base in excess of 300 million barrels of oil and significant volumes of gas. ExxonMobil proposes a \$2.6 billion capital investment to fully develop the block. The company estimates peak crude oil production will be 171,000 bpd. Major gas supplies could be available for sale to meet existing shortfalls in East and Central Java. The company estimates the project will generate annual gross revenues between \$700 million and \$1.2 billion at peak production.

In 2005, Pertamina and ExxonMobil signed a new cooperation contract for the Cepu block, where each holds a 45 percent interest in the block. Previously EM held a 100% participating interest under a PSC awarded by Pertamina in 1990. The March 2006 JOA resolved a disagreement over operatorship with EM securing the lead to develop the project and Pertamina executives playing key roles.

In North Sumatra, ExxonMobil's natural gas operations include the Arun, Pase, South Lhoksukon, and North Sumatra Offshore fields, which supply gas to the

Arun LNG plant. Gas supplies from the field is declining and not sufficient to meet export commitments and supply the local fertilizer industry in Sumatra. The government has requested that ExxonMobil divert some of its production from elsewhere in Indonesia to supply the fertilizer plants even at the cost of the GOI having to purchase LNG cargoes from the world spot market to meet its contractual export commitments.

In April 2006, ExxonMobil divested its 50% participating interest in A-Block in the Madura Strait to a consortium of Indonesian, British, and Japanese firms. The company also sold its 68 percent interest in another Madura Strait PSC to Husky Energy in 2004.

## **BP**

With more than three decades of operating history in Indonesia, BP has become one of the largest foreign investors with a cumulative capital investment to date of over US\$5 billion. BP has business interests upstream, downstream, and in the chemicals sector and employs over 1,000 Indonesian nationals.

BP's operating assets offshore North West Java cover 8,300 square kilometers, from north of Cirebon to the east to Kepulauan Seribu to the west. BP West Java has been the major gas supplier to state-owned electricity company PLN since 1993, enabling PLN to generate electricity for the Greater Jakarta and West Java areas. BP West Java supplies gas also to gas company PGN and fertilizer producer PT Pupuk Kujang.

The Tangguh LNG Project is a major multinational development, with a lifespan of more than 30 years, to produce

the natural gas fields in the remote Bintuni Bay area of Papua Barat. The gas reserves were discovered in the mid-1990s with proved reserves of 14.4 TSCF. It is operated by BP Berau Ltd. and will begin its operation towards the end of 2008 with deliveries to customers likely to begin in early 2009.

BP is involved in VICO Indonesia through its joint venture with ENI. VICO operates the Sanga-Sanga Production Sharing Contract (PSC) and employs more than 1,000 nationals

In chemical business, BP has a 50/50 joint venture with Mitsui in PT AMI which produces PTA (purified terephthalic acid), feedstocks for fiber / string and also polyester bottling industries. BP also produces and markets lubricant under the Castrol brand.

## **ConocoPhillips**

ConocoPhillips has had a presence in Indonesia for more than 40 years. It has focused in two core areas: the South Natuna Sea and onshore South Sumatra. It has 11 exploration and production licenses comprising roughly 14.5 million gross acres. The company operates nine Production Sharing Contracts (PSCs), four of them offshore: South Natuna Sea Block B, Ketapang, Amborip VI and Kuma. The remaining five PSCs are onshore: Corridor TAC (technical assistance contract), Corridor PSC, South Jambi B, Sakakemang JOB (jointly operated) in South Sumatra and Warim PSC in Papua.

ConocoPhillips holds a nonoperator interests in the Banyumas PSC onshore Java. In 2006 and 2007, the company sold its interests in the Block A PSCs in North Sumatra and was awarded the

Amborip VI PSC in the Arafura Sea and Kuma Block in Makassar Straits.

ConocoPhillips is the largest supplier of pipeline gas in Indonesia through the South Sumatra pipeline and West Natuna pipeline. The company owns and operates 621 miles of onshore and offshore natural gas pipelines that deliver ConocoPhillips's South Sumatra natural gas to market, including the Grissik-to-Duri and Grissik-to-Singapore pipelines. Meanwhile, natural gas from Block B is sold via two long-term contracts. In the first contract, ConocoPhillips is a participant in the West Natuna Gas Supply Group (WNG). WNG jointly markets natural gas from fields in three South Natuna Sea PSCs, including Block B, to SembGas in Singapore. The second contract is solely supplied with natural gas from Block B and provides deliveries to Petronas in Malaysia.

In August 2003, ConocoPhillips began supplying natural gas from its south Sumatra Corridor PSC to Singapore's PowerGas, via the Grissik-Batam-Singapore gas pipeline. The company has also supplied natural gas to Singapore's Sembawang Gas from its West Natuna gas fields since 2001 and to Petronas' Duyong Complex offshore Malaysia from South Natuna Sea Block B since August 2002. ConocoPhillips has been a major player in the pipeline gas business since 1998, when it began supplying gas from the South Sumatra Corridor Block PSC to the Chevron-operated Duri steamflood in Central Sumatra.

ConocoPhillips holds a 40 percent operating interest in the offshore Block B PSC, South Natuna Sea. The Belanak floating production, storage and offloading (FPSO) project at the Block B

PSC started oil production in December 2004. The FPSO has a capacity to process 100,000 bpd of oil and 430 million cubic feet of gas per day. Natural gas production from the field is exported via pipeline to Singapore and Malaysia. In offshore East Java, ConocoPhillips has an operating interest in the Ketapang block. The company believes the block has significant oil potential and plans an additional 5 wells in 2006. Malaysia's Petronas has an equal, non-operating interest in the block. ConocoPhillips plans to drill and invest over \$3 billion in projects in the Natuna Sea and Ketapang over the next 4 years.

ConocoPhillips is also a major player in the \$900 million South Sumatra to West Java gas development project. The project includes a 660-kilometer pipeline from ConocoPhillips Subang gas field in the Corridor Block to the state-owned electricity utility PLN gas-fired power plants in West Java. The company signed a gas sales agreement in August 2004 with state gas company PGN for 2.3 TSCF of gas to supply industrial customers in West Java and Jakarta over a 17 year period commencing 2007. Gas supply will come from the Suban gas field on Corridor Block PSC, South Sumatra and will be transported via the South Sumatra-West Java pipeline.

### ***Amerada Hess***

Amerada Hess consolidated its holdings in Indonesia and sold most of its Indonesian assets during 2002-2003. Amerada Hess' present assets in Indonesia are a 75 percent operating interest in Pangkah PSC and a 25 percent working interest in the Jambi Merang JOB. It produced approximately 4,000 boepd in 2006.

Amerada Hess has focused its operations in Indonesia on the development of the Ujung Pangkah gas field located in the Madura Strait, offshore East Java. The company is also constructing an offshore well head platform and an onshore gas processing facility in Gresik. Amerada Hess plans to pipe gas from the Ujung Pangkah gas field to PLN's Gresik power plant. In December 2004, the company signed a 400 BSCF gas supply contract with PLN for 20 years starting at the end of 2006.

### **Medco**

Indonesia's largest private oil company, Medco began exporting crude oil in 2000. It also formally changed its name to "PT Medco Energi Internasional Tbk." at that time. Medco is 50.7 percent owned by Encore International Ltd, which is affiliated with the Panigoro family. On January 2005, Encore signed conditional sales purchase agreements to buy out (Thai) PTTEP's 40% share and Cumin Limited's 19.9% percent share in New Links Energy Resources. Encore is now the sole shareholder of New Links. In 2005, Medco launched a secondary public offering, which increased public investors' shareholding in Medco up to 42.6 percent. Medco, through its subsidiaries, owns 15 oil and gas blocks throughout Indonesia, 9 of which are in production, while the rest are in the exploration phase.

Medco's production remained steady in 2006 at 56,367 bpd, though down from 2006. An ongoing production decline in Medco's largest fields, Kaji Semoga in Rimau PSC, South Sumatra, is the primary reason for drop off from 2000-2002. Medco plans to utilize waterflood optimization and enhanced oil recovery

(EOR) to slow down the decline rate in its Sumatra fields. Medco's proven oil reserves now stand at 99 million barrels.

In late 2003, Medco assumed the sole risk in exploration drilling in Jeruk in the Sampang PSC. They struck oil in 2004. Other interest holders in the PSC, Singapore Petroleum Company and Cue Energy, decided to reinstate their rights to the Jeruk field at that time.

In August 2004 Medco completed its takeover of Novus Petroleum Limited, a listed Australian oil and gas company with assets in the Middle East, Australia, U.S. and Indonesia. Through the acquisition, Medco gained interests in two Indonesian producing fields, Brantas and Kakap. Shortly thereafter, Medco began consolidation and shed some of Novus' assets. The company sold Novus' Pakistani, U.S., and Australian assets, as well as 18 percent and 6.25 percent of Brantas and Kakap PSCs in Indonesia.

The company believes its future lies in natural gas development. Medco's proven gas reserves stand at 267.6 BSCF. Medco's gas production more than doubled to 192 mmcf/d in the period from 2002 to 2004, before dropping back to 127.2 mmcf/d during 2006. LPG sales also went from zero in 2003 to 100.1 MTD in 2006.

In addition to gas blocks in south Sumatra, Medco's Exspan Tomori Sulawesi holds a 50 percent operating stake in the Senoro-Toili JOB with PT Pertamina. The block has estimated natural gas reserves of 2.5 TSCF. In January 2006, Medco shipped its first oil from the Senoro's Tiaka field to Pertamina's Plaju refinery.

In July 2005 Medco entered into an Exploration Joint Venture Agreement with the U.S.-based Anadarko Petroleum's Indonesian subsidiary. Under the agreement Anadarko will provide \$80 million over three years in exchange for up to 40 percent interest in Medco's exploration assets. Medco also acquired 100% of the Sembakung Technical Assistance Contract (TAC), a mature producing field in Perkasa Equatorial Sembakung and signed a PSC agreement with Libya's National Oil Company for the Area 47 concession, Northwest Libya. In 2006, Medco plans \$300 million in capital expenditures to continue with its acquisition strategy, of both domestic and international assets.

### **EMP**

Energi Mega Persada (EMP) is an active producer, developer and explorer in the upstream oil and gas sector. It was incorporated in 2001 and listed on the Jakarta Stock Exchange in 2004.

The company became embroiled in controversy in May 2006 when a mudflow began from a wellhead at their Brantas PSC in East Java. The company contends that unrelated seismic activity caused the wellhead blow out, not negligent drilling practices, as some community activists and NGOs charged. Roughly 50,000 people have been displaced and 30 factories have been forced to shut down, according to government information. The mudflow has caused approximately Rp. 7.3 trillion (\$797.8 million) in infrastructure damage through 2007, according to GOI estimates. In April 2007, the GOI said it set aside Rp 2.5 trillion (\$273 million) in the state budget to repair infrastructure damaged by the mudflow. It said it will seek full

repayment from Lapindo, although the government later relieved Lapindo from full responsibility by declaring the mudflow the result of an earthquake 300 km away from the drilling site. Geologic experts say the mudflow may continue for years or perhaps even decades.

According to the company, Lapindo has been paying Rp 2.5 million per year (\$273) in rental assistance to each family displaced and Rp 300,000 per month (\$33) in living costs to each person in the impact area. Lapindo announced plans to end all such payments on May 1, 2008, although they continue to some families that have not yet been resettled.

In November 2006 the Capital Market Supervisory Agency disallowed EMP's proposed deal to sell its interest in Lapindo to Freehold Group, an independent company incorporated in the British Virgin Islands.

In July 2007 EMP deconsolidated Lapindo Brantas Inc, Kalila Energy Limited, and Pan Asia Enterprise from EMP's consolidated financial statements.

In March 2008 through a series of financial transactions approved by GOI regulators, EMP diluted its stake in Lapindo Brantas Inc to 0.01% by selling Lapindo to Lyte Ltd of Jersey, UK. By this action, EMP may no longer face significant potential liability for the mud flow.

Soon after incorporation in 2001 EMP embarked on a series of acquisitions. In 2003 EMP acquired Kondur Petroleum, operator of the Malacca Strait PSC with a 34.46% working interest. In 2004, it bought PT Imbang Tata Alam (ITA) which had a 26.03% working interest in

the Malacca Strait PSC. Kondur and ITA together hold a 60.49% working interest in the PSC. In March 2004, it bought Kalila Energy Ltd. (KEL) and Pan Asia Enterprise Ltd. (PAN) which controlled 100% of Lapindo Brantas. Lapindo has a 50% working interest and is operator of the Brantas PSC. In August 2004 EMP acquired a 100% working interest in the Kangean PSC through EMP Exploration (Kangean) Ltd. and EMP Kangean Ltd. EMP Kangean Ltd is the operator of the PSC. EMP bought THP for \$308.6 million. THP owned five PSCs.

In May 2007 EMP concluded a \$720 million deal with Japan's Mitsubishi and Japan Petroleum Exploration Co. Ltd to give the two firms an aggregate 50% working interest in the Kangean PSC. EMP retained a 50% interest in the Kangean PSC. In June 2007 EMP established strategic alliance to cooperate on gas exploration in the Suci Block in East Java with PT Indelberg Indonesia Perkasa and Pertamina in East Java.

In April 2008 EMP bought the Tonga PSC in North Sumatera for \$11.8 million. The company estimates that Tonga PSC has up to 90 million boe.

### ***CNOOC***

The China National Offshore Oil Company (CNOOC) produced 57,000 bpd in 2006. CNOOC's holdings now include an operating 65.34% interest in the Offshore South East Sumatra PSC, a 36.72 percent interest in the Offshore Northwest Java PSC, a 25 percent interest in the West Madura PSC offshore East Java, a 50 percent interest in the Poleng TAC in East Java, and a 39.51 percent interest in the Malacca Strait PSC. CNOOC's Indonesian operation had net

proved reserves of 155 million boe, accounting for approximately 7 percent of total company reserves. In 2004, the company produced and 81.5 thousand bpd of oil and 18.8 BSCF of gas.

CNOOC's Indonesia strategy is to tap into the export market as well as get more involved in the domestic natural gas industry. CNOOC entered the LNG export business when it bought a 12.5 percent stake in the \$3 billion Tangguh LNG project in late 2002.

Production in CNOOC's South East Sumatra PSC continued to decline over the past 4 years. Main oilfields Cinta and Widuri are already 30 years old and are steadily declining. However, the company is optimistic that it will be able to maintain production level through the development of marginal fields and new gas fields in the area. In April 2005, CNOOC received increased financial incentives from the government for its 6 marginal fields. CNOOC secured a gas sales agreement with PLN in 2004 to supply 80 billion BTU to PLN's proposed Cilegon Power plant in West Java starting in 2006 and lasting 12 years. They will supply the gas mainly from the newly developed Zelda and Banuwati fields in the Southeast Sumatra PSC.

### **Crude Oil Marketing**

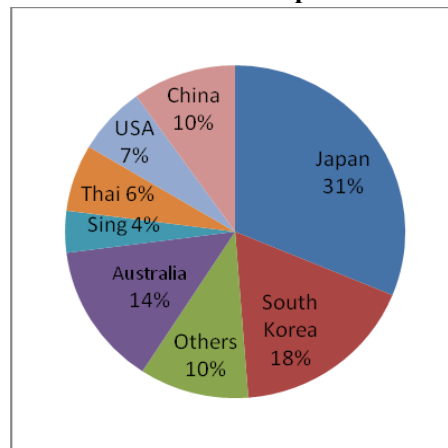
Indonesia, through Pertamina, BP Migas and its foreign partners, sells crude oil using the Indonesia Crude Price (ICP) formula. Indonesian crude is generally low sulfur and waxy. Indonesia's representative Minas crude (often referred to in marketing terms as Sumatra Light Crude or SLC) produced in Central Sumatra has an American Petroleum Institute (API) gravity of 34.5 degrees at

60 degrees F and a sulfur content of between 0.06 percent and 0.10 percent by weight.

Effective October 1, 1999, Pertamina changed the ICP pricing formula for official export prices of Indonesian crude. The ICP formula has three components: the Asian Petroleum Price Index (APPI), the Rim Intelligence Company price, and the Platts price. The APPI component is derived from twice weekly APPI price assessments adjusted by a basket of regionally traded crude oils (including Indonesian Sumatra Light Crude and Malaysian Tapis) using a 52-week moving average. Pertamina lowered the portion of the APPI panel quota from 33.3% to 20.0% and increased the portion of the spot assessments of Platt and RIM to 40.0% each. The purpose of the adjustment was to better reflect world prices through more emphasis on the spot market. The Ministry of Energy and Mineral Resources reviews the oil pricing formula semi-annually.

Asian countries are the largest markets for Indonesian crude. Japan accounted for 31% of Indonesian crude oil exports in 2006, followed by South Korea (18%), Australia (13.8%), China (10%), and the United States (6.6%). Indonesia's overseas markets have exhibited declining sales volumes since 2002. Exports declined 15% by volume from 2005.

**Indonesia 2006 Crude Export Destinations**



Pertamina has an office in Singapore through its wholly owned Hong Kong-based subsidiary Pertamina Energy Trading (ex-Perta Oil). The company promotes and facilitates trade in crude oil and fuel between Singapore and Indonesia, offers logistical services to Pertamina, and represents Pertamina's interests.



## PETROLEUM PRODUCT CONSUMPTION AND REFINING

### Overview

Domestic fuel consumption fell slightly from 2004 through 2006 (the latest year for which official data is available) in response to the government's decision to raise subsidized fuel prices by an average 126% in October 2005. Fuel consumption fell by 6% from 64.7 million kiloliters (KL) in 2005 to 60.8 million KL in 2006. Consumption in 2004 was 64.7 million KL, 59.9 million KL in 2003, and 57.8 million KL in 2002. All categories of petroleum products saw slight to moderate decreases in consumption when compared with 2005. Auto diesel consumption fell from 27.5 million KL in 2005 to 25.4 million KL in 2006. Gasoline consumption declined slightly from 17.83 million KL to 17.63 million KL in 2006. In 2006, fuel product imports decreased by 19.5% to 133.4 million barrels.

The majority of domestic consumption is for transportation (46.7 percent), industry (24.6 percent), household use (18.2 percent) and electric power (10.5 percent). The transportation sector uses largely automotive diesel oil (ADO), while households are the largest consumers of kerosene.

Pertamina's Downstream Directorate is responsible for the distribution of fuel products to end-users from 174 storage depots throughout Indonesia. The Directorate has established eight regional representative offices to market the products. Fuel products are transported via an elaborate pipeline network and by tank trucks, rail tank wagons, tank vessels and barges. Pertamina controls the sale of gasoline and automotive diesel by direct

ownership and franchise of close to 3,000 gasoline stations nationwide. Pertamina itself only owns 2% of the retail stations. The private sector also sells kerosene. The selling price of fuel oil on the domestic market, excluding industry fuels, is determined by the government. Since 2005, prices for high grade automotive fuels and industry fuels are adjusted according to market prices and are managed by Pertamina.

**Domestic Fuel Consumption**  
(Million Liters)

Products	2004	2005	2006
Auto Diesel	26,487.75	27,470.43	25,382.00
Gasoline	17,027.44	17,828.53	17,631.55
Kerosene	11,846.12	11,385.58	10,023.21
Fuel Oil	5,754.51	4,827.88	4,820.18
Diesel Oil	1,093.41	895.21	497.82
Avtur	2,437.92	2,330.40	2,428.08
Avgas	3.42	3.07	3.39

Source: Migas

### Oil Refining

Since 2004, Indonesia's production of petroleum-based fuels and non-fuels from domestic refineries has remained just under 1 million bpd, largely due to decreases in domestic crude supply. In 2006, production was 958,709 bpd, down 2% from 979,876 bpd in 2005. Most of the petroleum products refined in Indonesia are destined for domestic consumption. Indonesia has nine oil refineries with a combined installed capacity of 1.06 million bpd. Eight of them are owned and operated by state oil and gas company Pertamina, and one – Cepu – is owned by the Research and Development Agency of the Department of Energy and Mineral Resources. The nine refineries are located in Sumatra,

Java, East Kalimantan and Irian Jaya. They produce a mix of oil fuels (diesel, fuel oil and kerosene), liquefied petroleum gas, secondary fuels (such as naphtha) and non-fuels (such as asphalt and lubricants).

According to government figures, on average Pertamina's refineries operated at 91% of their combined capacity of 1.056 million bpd in 2006. The lack of spare capacity also means that Indonesia must seek overseas imports if its larger refineries are closed for maintenance.

#### Oil Refinery Production (1,000bpd)

Refinery/Location	Crude Processed		
	2004	2005	2006
Pangkalan Brandan, N. Sumatra	2.3	2.5	1.9
Dumai, C. Sumatra	122.1	121.4	126.9
Sungai Pakning, C. Sumatra	48.6	49.0	38.6
Plaju, S. Sumatra	107.4	101.4	93.8
Cilacap, C. Java	332.5	315.7	322.5
Balikpapan, E. Kalimantan	264.3	259.5	254.5
Balongan, W. Java	111.9	120.2	116.6
Kasim, Papua	8.4	7.8	1.5
Cepu, C. Java	2.2	2.5	2.2
<b>TOTAL</b>	<b>999.8</b>	<b>979.9</b>	<b>958.5</b>

Source: MIGAS

In light of rising import cost, Pertamina began using more domestic crude oil in its refineries.

## Refinery Projects

### *Pangkalan Brandan*

This small, aging refinery consists of a simple (primary) distillation unit, with no secondary processing unit. Its products are premium fuels, diesel, LSWR and asphalt. Pangkalan has a processing capacity of 5,000 bpd, although it was shut in 2007 and may not reopen.

### *Dumai*

The Dumai refinery has both a primary and a secondary processing unit (Hydro Cracker), which can produce LPG, naphtha, HVGO and green coke. Its processing capacity is 120,000 bpd.

### *Sungai Pakning*

Built around 1957, the plant refines heavy paraffin crude oil to produce diesel and paraffin, with a capacity of 50,000 bpd.

### *Plaju*

This aged refinery was built by Shell in 1930. It consists of both a primary unit and a secondary processing unit. The secondary unit, a Fuel Catalytic Cracker Unit (FCCU), can process up to 135,000 bpd and was designed to produce PTA and Polydam. In August 2003, operating problems at Plaju closed the refinery for one month, delaying maintenance on the Balongan refinery. Pertamina has proposed converting the facility into a petrochemical plant by 2008.

### *Cilacap*

Indonesia's largest refinery located in Central Java, Cilacap has a 348,000 bpd capacity. Its products are premium fuel, kerosene, diesel, fuel oil, and naphtha. Its secondary processing unit is nearly the same as that of Plaju (FCCU) and produces lube base products. The bulk of crude supplies (up to 75%) for the refinery are imported from Asia and the Middle East.

Pertamina has signed a long-term import contract with Saudi Aramco to supply the refinery's crude need. Pertamina has also continued examining the cheaper option of purchasing crude from local producers.

### ***Balikpapan***

The Balikpapan refinery in East Kalimantan is more modern than Cilacap and Dumai, and consists of both a primary unit and a secondary processing (Hydro Cracker) unit. The plant has a refining capacity of 260,000 bpd and can produce up to wax. Bechtel upgraded the refinery in 1983. Unfortunately, due to the facility design, the plant cannot process crude from co-located crude oil producers in Indonesia (Total, Unocal, Talisman, and VICO). The refinery only processes imported crude oil.

### ***Balongan***

Indonesia's newest state-owned refinery at Balongan in West Java has the capacity to process 125,000 bpd of domestic crude. It has two production units: the crude distillation unit (CDU) and the residue catalytic cracking unit (RCCU). The CDU processes crude oil into naphtha, kerosene, automotive diesel and residue; the RCCU turns the residue from CDU into LPG and Premium, Super TT and Premix gasoline. The RCCU, one of the world's largest, has a processing capacity of 83,000 bpd, but has experienced problems since its commissioning in 1994. The refinery was initially designed to supply export markets, which is why it is also called the Exor (export oriented) I refinery. Balongan supplies about 70% of Jakarta's refined product demand. The plant processes Duri crude (70%), Minas crude (20%) and Jatibarang crude (10%). Pertamina closed the plant for routine maintenance during September-October 2003. However, a crude pipeline leak required Pertamina to run the refinery at 80% capacity for another month.

In the last year, Balongan refinery was upgraded to a production capacity of

165,662 barrels a day and produces a range of fuel products such as premium gasoline, high grade fuel Pertamina Plus and Pertamina Dex, and liquefied petroleum gas.

### ***Kasim***

This is a small, mini-refinery located in Papua and has only a simple distillation (primary) unit with an installed capacity of 10,000 bpd. Its main products are premium fuel, diesel and kerosene.

## **New Refinery Projects?**

According to the Energy Ministry, Indonesia needs about \$15 billion in refinery investment in the coming years to reduce the country's growing reliance on fuel imports (30 percent of consumption currently). Domestic demand for fuel is increasing by 7 percent annually, but refining capacity has remained stagnant for the last decade.

Local firm PT Intanjaya Agromegah Abadi (backed by Saudi investors) and its joint venture partner, Texas-based Inter Global Technologies (IGT), have been seeking to establish refineries in Indonesia, starting with an oil refinery in Parepare in South Sulawesi. This refinery was initially licensed in 1996, but development stalled during the 1997-98 economic crises and has not restarted. IAA holds 30% stake in PT Kilang Minyak Nusantara, owner of the proposed refinery, while IGT holds the remaining 70%. The proposed refinery will have a capacity of 300,000 barrels per-stream day (BSPD). No construction has begun on the plant.

In July 2005, Pertamina signed a memorandum of understanding (MOU)

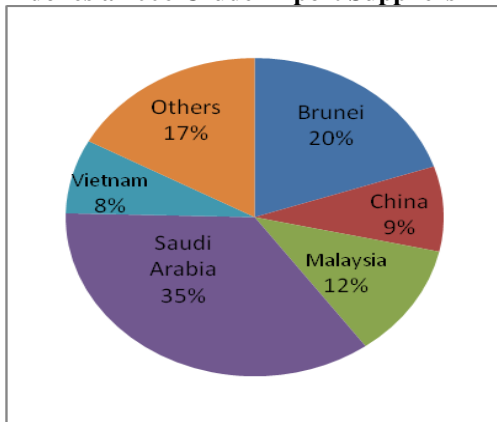
with China's Sinopec to construct a refinery in Tuban, East Java with a capacity between 150,000 to 200,000 bpd. However the refinery construction, which was due to start in December 2005, has been postponed. Pertamina is reported to be looking for another partner to develop the project as there is no final consent of participation from Sinopec.

Pertamina has also sought overseas partners for new refineries, and has looked to Gulf states such as Kuwait and Iran as potential investors. Despite talk and some exploratory MOUs, no firm commitments have yet been made.

## Fuel Imports

GOI officials estimate that Indonesia became a net importer of fuel in 2006. The output of Indonesia's nine refineries is below domestic consumption, so that refined fuel products must be imported, as well as crude for blending.

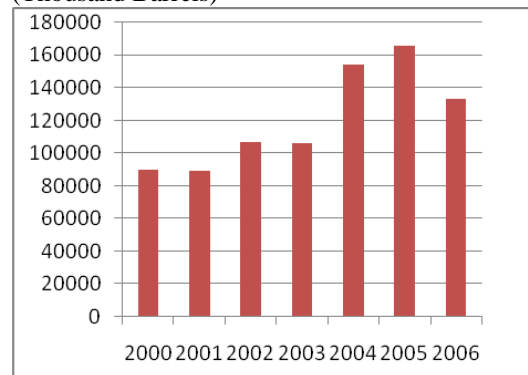
**Indonesia 2006 Crude Import Suppliers**



In 2006, fuel product imports decreased 19.5% to 133.4 million barrels from 165.7 million barrels in 2005. Imports consisted of gas oil (51%), High Octane Motor Component 88 (28%), fuel oil (8%), HOMC 92 (5%), and kerosene and avtur, (4% each).

## Imports of Fuel Products

(Thousand Barrels)



Pertamina has adopted a four-pronged approach to source adequate supplies of fuel for Indonesia's domestic market:

- Production from Pertamina refineries;
- Time-limited contracts for fuel imports from the Middle East;
- Spot product purchases from Singapore; and
- Overseas crude processing deals (CPD).

## Pricing and Subsidies

The government still continues to administer petroleum product prices, which remains a matter of great sensitivity. Over the past four years, the government tried to reduce fuel subsidy by increasing fuel prices. However in the past two years, fuel subsidies have jumped back from Rp 64 trillion in 2006, to Rp 84 trillion in 2007 due to the increase in crude prices. In 2008, the GOI revised its estimated fuel subsidy expenditure from Rp 47 trillion to Rp 180 trillion, if the Indonesian crude price (ICP) averages \$127 per barrel.

Following the fuel price increases of 2005, Indonesian officials indicated that they would move toward a market pricing

mechanism for all fuels. In 2005, the government managed to completely phase out subsidies for industry fuels and high-octane transportation fuels (Pertamax and Pertamax Plus). Prices for these fuels are administered monthly by Pertamina. In its renewed Energy Blueprint, the government planned to fully remove subsidies for premium and diesel fuels by 2006 and kerosene by 2007, but no steps were taken toward this goal between 2005 and 2008. May 2008's subsidized fuel price increases did not represent a shift to a market price mechanism. The blueprint also envisions more efficient use of fossil fuels and encourages alternative energy source development.

## Subsidized Fuel

Following two dramatic subsidized fuel price increases in 2005, prices remained flat until May 2008, when increases in the international price of crude forced the government to increase prices again. As per Presidential Decree No. 55/2005, the focus of which was not changed by the 2008 fuel price increase, subsidized fuel is for the use of the following customers:

- Households (kerosene)
- Fishing boats of maximum 30 tons in size with maximum fuel consumption of 25 kiloliters (KL) per month (gasoil)
- Transportation, including private and government vehicles, public transport and domestic route ships (premium and gasoil)
- Public services facilities, including hospitals, places of worship, education facilities, crematorium and government offices (gasoil).

## Subsidized Fuel Price Changes (2004 – 2008) (Rupiah per liter)

Fuel Type	2004	Mar 2005	Oct 2005	May 2008
Premium	1,810	2,400	4,500	6,000
Gasoil	1,650	2,100	4,300	5,500
Kerosene	700	900	2,000	2,500

Source: Pertamina

The transportation and household sectors account for approximately 48% and 18% of total national fuel consumption. The price hike has been effective in suppressing domestic fuel consumption. Following October the 2005 price hike, Pertamina reported an average consumption decline of 20 percent in October and November. Premium and gasoil consumption declined by almost 36 percent and 30 percent respectively and by the end of the year, total fuel consumption fell below its national quota.

## Non-Subsidized Fuels

### Industry Fuels

In July 2005, Indonesia started a shift of its industry fuel prices to market-based pricing. The market price reference is calculated by adding 15 % to the average monthly Mid Oil Platt Singapore (MOPS), plus 15% for a market mechanism and an additional 10% for Value Added Tax (VAT). Pertamina announces price changes twice per month.

## Industry Fuel Price Changes (2005-2008) (Rupiah per liter)

Fuel Type	1 Oct 2005	1 Jul 2006	1 Jul 2007	1 Jul 2008
Premium	5,160	6,502	6,179	9,136
Gasoil	5,350	a) 6,609 b) 6,321	a) 6,125 b) 5,859	11,277
Kerosene	5,600	6,372	5,926	11,229
Diesel Oil	5,130	6,065	5,677	10,984
Fuel Oil	3,150	3,759	3,950	6,784

a) Transportation price; b) Industry price

Source: Pertamina

Included in the industry category are all other industries not stated in the

Presidential Decree No. 55/2005. Initially the price disparity between subsidized and industry fuels sparked increased smuggling activity and fuel adulteration with subsidized fuels, especially for kerosene (as of July 2005 subsidized price was Rp 900 as opposed to Rp 4,940 for industry). However, with increased government efforts to crack down on smuggling and narrowing price gaps following the 2005 price increase, the activities began to subside, although not completely. There were indications that adulteration and smuggling picked up again in 2007 and 2008, prior to the May 2008 subsidized fuel price increase.

In anticipation of downstream market liberalization and to secure its market share, Pertamina also began offering discounts to its industrial customers starting November 2005. Price discounts ranging between one and four percent are offered to industry customers willing to sign one-year contracts for a minimum of 100 KL of fuel per month.

### ***Other Transportation Fuels***

Indonesia has three higher-grade fuels available on the market for the transportation sector, Pertamina Plus, Pertamina and recently Pertamina DEX. Pricing for these fuels are also adjusted according to the market. Consumption of high-grade fuels declined considerably since Pertamina raised prices more than 50 percent in mid December 2004. Average daily consumption of these fuels fell to around 500 KL per day from 2,000 KL. Consumption for these fuels accounts for less than 1 percent of national fuel consumption.

### **High Grade Fuel Price Changes (2006-2008)** (Rupiah per liter)

Fuel Type	1 Jul 2006	1 Jul 2007	1 Jul 2008
Pertamax	6,000	6,400	10,300
Pertamax Plus	6,250	6,500	10,600
Pertamina DEX	6,100	6,300	13,000

Source: Pertamina

### ***Unleaded Gasoline Phase-in***

Indonesia's effort to phase out leaded gasoline began almost a decade ago and has received significant assistance from the U.S. Environmental Protection Agency and USAID. The government program to switch to unleaded gasoline (ULG) was overdue from its extended completion target in 2005, but the plan was officially accomplished in 2006.

Pertamina delayed full compliance with the Energy Ministry's Decree No.1585/1999, mandating nationwide unleaded gasoline by January 2003. Insufficient facilities and funding constraints limited Pertamina's ability to supply unleaded fuel nationwide. Pertamina completed its upgrade of the Balongan refinery in 2005, which produces a high-quality diesel fuel, Pertamina DEX.

ULG was first introduced in a gradual basis to five areas, the greater Jakarta area (July 2001), Cirebon in West Java (October 2001), Bali (November 2002), Batam (June 2003) and Surabaya (September 2004). These areas represent more than 40 percent of the national market. As of July 2006, ULG was sold at all gas stations nationwide. Leaded gas is no longer available, even to older cars that lack catalytic converters.



## **Downstream Market Liberalization**

Beginning in 1997, the GOI has moved slowly but surely to encourage greater capacity and efficiency in the downstream sector. In the early 1990's, the GOI determined that Pertamina did not have the funds to build additional refining capacity and undertook a series of measures to attract private investment in the refining sector. Under Presidential Decree (PD) No. 31/1997, the GOI loosened Pertamina's hold on refining by allowing private refineries to market their products domestically through Pertamina.

### ***Highlights of PD 31/1997***

- Private refineries can be set up by Indonesian companies in partnership with foreign firms or with Pertamina;
- Pertamina buys oil fuels and other refinery products from private companies on a long-term trade contract basis in line with Pertamina's needs and absorption capability and considering the economics of the private corporation's refinery products;
- Pertamina's buying price for fuel from those private refineries is based on the international market price;
- Oil products produced by private refineries which are not needed domestically may be sold by private companies on the international market;
- Pertamina will remain the sole distributor in the domestic market.

Oil and Gas Law 22/2001 marked another step toward liberalizing the downstream

sector. The Law generally envisioned a downstream sector which:

- Eliminates Pertamina's monopoly or retail position by November 2005;
- Ensures that investors and participants are given equal regulatory and legal treatment;
- Establishes a transparent pricing regime based on market prices;
- Rationalizes and streamlines downstream administration;
- Allows local and private investors to enter the downstream sector in four areas: processing, transportation, storage and marketing.

In 2004, the government issued Implementing Regulation No. 36/2004 on the sector. The regulation states:

- The Minister of Energy and Mineral Resources is in charge of issuing licenses for businesses wishing to engage in downstream activities;
- The Ministry of Energy and Mineral Resources determines types, standard and quality of fuel oil, gas and other fuels that can be marketed domestically;
- BPH Migas (Downstream authority) regulates the provision, distribution, and supply of fuel products;
- BPH Migas appoints companies with "special rights" as gas pipeline operators and determines tariffs for other pipeline users;
- BPH Migas stipulates fuel prices for households and small industries. In addition, BPH Migas will supervise pricing for fuel products and gas;

- Downstream businesses can be operated by corporations that have obtained a business license issued by the Ministry of Energy and Mineral Resources;
- Downstream activities include the processing of crude oil and gas into oil fuel and gas fuel, LPG and LNG; the transport of processed oil/gas products via pipeline and otherwise; the storage of such products; and the sale, purchase, export and import of such products;
- Processing of oil and gas products into lubricants and petrochemical products are categorized as downstream activities and are jointly regulated by the Ministry of Energy and Mineral Resources and the Ministry of Industry;
- There are separate licenses for processing, transportation, storage and trading. There are two types of fuel trading licenses: wholesale and limited trading. Wholesale licenses are for companies that intend large-scale sale/import/export of processed oil and gas products and have their own storage facilities. Limited trading licenses are for similar companies that do not have storage facilities;
- Wholesale license holders can distribute their commodities to end users, while limited trading license holders can only sell their commodities to users with storage facilities or receiving terminals;
- The government sets policy on the national Strategic Fuel Reserve, and can obligate downstream license holders to contribute to the reserve. The government determines the size of each company's contribution.

Foreign investors are starting to enter the downstream market. In November 2005, Shell became the first private investor to open a fuel retail station in Jakarta's bordering city, Tangerang. Malaysia's Petronas followed suit and opened its retail station in Cibubur in December 2005. Other investors, including Chevron, have expressed interest in entering the downstream sector.

Although the downstream market is formally liberalized, Pertamina retained its public service obligation (PSO) to ensure distribution of fuel to the whole nation until 2006. Presidential Decree No.71/2005 allows BPH Migas to appoint other companies to distribute fuels through an open bidding process. Tenders for subsidized fuel are based on the MOPS price plus a premium for distribution costs and profit margin. In addition any company wishing to distribute subsidized fuel must also distribute fuel to remote areas. It will take time for new players to develop their distribution network before they can participate in the subsidized fuel market.

In response to increased competition, Pertamina took some defensive measures. In 2005, the company changed its corporate logo, renewed its fuel station franchising procedures and revamped its existing fuel stations. Pertamina plans to add another 500 fuel stations to its existing 2,500 fuel stations jointly with its partners. Pertamina also signed a \$6 billion MOU with Canada Accelon Energy to build a 28 million barrels per year synthetic diesel fuel factory in East Kalimantan. Under the MOU, Accelon must exclusively sell the Euro-4 standard diesel fuel produced at the factory to Pertamina for 15 years starting 2008.



### ***Lube Oil***

Downstream liberalization is also expected to change market trends and bring benefits to consumers in the oil lubricant market. Industry players estimate that over 250 brands of imported and local lubricant currently exist in the market. Pertamina remains the market leader although its market share is declining. Pertamina's current market share is estimated at around 55% compared to more than 70% prior to liberalization. Pertamina operates 3 lube oil blending plants, located in Jakarta, Cilacap and Surabaya, with a combined capacity of 573,000 liters. Other prominent players in the market include Pennzoil, Evalube, BP, Shell, and Petronas. Motor vehicles manufacturers, such as Toyota, Honda and Suzuki have also entered in the motor lubricant market and have started distributing their own lubricant brands.

Three years after the liberalization, the industry is haunted with oversupply and production capacity. In 2005, domestic production capacity reached 1.2 million KL per year, while demand is estimated at around 700,000 KL/year. Currently market competition is very high and is intensified after March 2006, when the government reduced import tariffs for mineral-based lubricants from 30% to 15%. The Indonesian Lube Association (Aspelindo), whose members' production account for half of national lubricant production, is very discouraged by the decision. As more imported products enter the market, local producers are gradually losing their market share.

## NATURAL GAS

### Production

Indonesia has natural gas reserves of 187.09 trillion standard cubic feet (TSCF) as of 2006 (93.95 TSCF proven and 93.14 TSCF possible), a decline of 3% from 2005. In 2006, the country produced 2.954 TSCF of gas, ranking eighth in world gas production. Production declined one percent from 2005 levels.

Indonesia's largest producers in 2006 (in order) were Total, Pertamina, ConocoPhillips, ExxonMobil, VICO, BP, Petrochina, and Chevron, all of which operate under production sharing contracts and account for 90 percent of the country's total production.

Gas reserves are equivalent to almost four times Indonesia's oil reserves and can supply the country for 62 years at current production rates. According to the GOI, over 71 percent of natural gas reserves are located offshore, with the largest reserves found off Natuna Island (28.8%), East Kalimantan (25.2%), South Sumatra (13%) and Papua (12.8%). However, not all of these reserves are commercially viable, due to both the quality of the gas and the distance to market.

In 2006, the government announced a policy re-orienting natural gas production to serve the domestic electric power market. Government ministers said Indonesia will honor all existing contracts but not necessarily renew current ones as they expire between 2008 and 2011.

In 2006, Indonesia supplied 14% of the world's LNG, down from 26% in 2003. LNG accounts for 41% of the country's total natural gas production and is

exported mainly to Japan, South Korea and Taiwan. Pipeline gas exports to Singapore began in 2001, reaching 181.3 BSCF in 2005 (the latest year for which figures are available). A new Sumatra-Singapore pipeline was inaugurated in late 2003. Revenues from gas exports are substantial -- \$10.5 billion in 2006, about 10 percent of Indonesia's total export revenues.

Most of Indonesia's gas comes from Natuna (53.56 TSCF in reserves), Kalimantan (47.77 TSCF in reserves) and Sumatra (33.51 TSCF in reserves), but there are large reserves in Papua (24.47 TSCF in reserves) and other areas in the archipelago (27.78 TSCF in reserves).

#### Gross Natural Gas Production by Major Producers (MMSCF)

Company	2004	2005	2006	%
<b>Total</b>	<b>909,932</b>	<b>1,067,190</b>	<b>1,097,341</b>	<b>2.83</b>
<b>Pertamina</b>	<b>383,870</b>	<b>379,612</b>	<b>368,576</b>	<b>-2.91</b>
<b>ExxonMobil</b>	<b>507,096</b>	<b>379,125</b>	<b>322,254</b>	<b>-15.00</b>
<b>ConocoPhillips</b>	<b>319,317</b>	<b>344,886</b>	<b>345,070</b>	<b>0.05</b>
<b>Vico</b>	<b>329,511</b>	<b>251,876</b>	<b>208,371</b>	<b>-17.27</b>
<b>BP</b>	<b>182,209</b>	<b>123,668</b>	<b>136,799</b>	<b>10.62</b>
<b>Chevron (Unocal)</b>	<b>124,199</b>	<b>120,343</b>	<b>107,225</b>	<b>-10.90</b>
<b>Petrochina/Devon Energy</b>	<b>73,668</b>	<b>67,629</b>	<b>111,090</b>	<b>64.26</b>
<b>Others</b>	<b>200,330</b>	<b>251,012</b>	<b>257,372</b>	<b>2.53</b>
<b>Total</b>	<b>3,030,132</b>	<b>2,985,341</b>	<b>2,954,098</b>	<b>-1.05</b>

Source: MIGAS

Roughly 55% of Indonesia's natural gas was marketed as LNG or liquefied petroleum gas (LPG) for export, 5.6% for electricity, 6.4% for fertilizer and 3.4% for city gas. Less than 6% was flared.

Indonesia lost its title to Qatar as the world's leading exporter of LNG in 2006, according to media reports and industry analysts. Its share of world production

dropped from 18.8% in 2005 to 14% in 2006. Indonesia exported 46.1 million tons of LNG in 2006, according to government data. LNG production at Arun and Badak (Bontang) was 22.4 million metric tons (MT) in 2006, a decrease from the 2005 production level of 23.7 million MT. Japan, South Korea and Taiwan were the key markets for LNG.

Indonesia began exporting 325 million cubic feet per day (mmcf) to Singapore via a subsea pipeline from West Natuna under a 22-year contract in 2001.

Deliveries of natural gas to Malaysia's Duyong gas platform began in August 2002, under a 20-year contract for 250 mmcf. Gas sale revenues will likely total \$14.2 billion over the life of both contracts. In August 2003, the South Sumatra-Singapore gas pipeline was completed. It will eventually supply 350 mmcf over a 20-year contract.

### **Lower Subsidies, New Laws Stimulate Domestic Demand**

Domestically, gas demand comes primarily from fertilizer and petrochemical plants (34%) and the power industry (25%). The GOI has indicated that gas will play a significant role in meeting the country's growing electric power demands. The reduction of fuel subsidies in October 2005, and their elimination for some industrial uses, eased fuel price distortions and made natural gas increasingly competitive as a fuel alternative, stimulating gas demand. The government eliminated the subsidy for industry fuels in 2005 and phased out premium fuel and gasoil subsidies by the end of 2006. In October 2005, state gas company PGN raised industrial gas prices to \$4.5 per mmbtu from \$3.9 per mmbtu.

In January 2006 PGN raised prices again to \$5 per mmbtu, and again in 2008 to \$5.60 per mmbtu. Even at that price, however, gas was still equivalent to only about 19 cents per liter of diesel oil compared to the industrial diesel oil price of \$1.20 per liter or the subsidized auto diesel price of 60 cents per liter. In May 2008, PGN agreed to increase its gas sales to PLN by 200 million cubic feet per day under a three year contract at a price of \$5.60 per mmbtu. Gas will be transmitted from PGN South Sumatra to West Java via pipeline.

The Oil and Gas Law of 2001 introduced other changes that encourage domestic gas use. The new law permits direct "free market" negotiations of gas contracts between buyer and seller. Previously, production sharing contractors (PSCs) had to sell their gas to the state-owned petroleum company, Pertamina, which in turn sold the gas to the final buyer. Several PSCs report that the GOI's new direct negotiation mechanism is working well and that the upstream authority BP Migas has generally stayed out of the negotiations, except in cases where either the buyer or seller requested its participation. However, MIGAS recently came out against an expansion of the program.

These provisions have raised domestic demand estimates and led to a number of new gas sales agreements. BP Migas estimates that by 2018, Indonesia's domestic gas demand will increase to 2.18 TSCF per year. In 2006, domestic gas demand was 1.35 TSCF with 4% growth projected in 2007. Meanwhile, domestic gas sales reached 0.92 TSCF in 2007, a slight increase from 0.85 TSCF in 2006.

## Growing Power Needs Will Drive Gas Demand

Power generation needs in Java and Bali will also drive growing domestic gas demand. Over the last several years, peak power demand grew by an average of six percent annually, while power capacity did not increase. Peak loads on the Java-Bali grid (which accounts for of 80 percent of Indonesia's power demand) reached a record high of 16,251 MW in November 2007, and were projected by PLN to reach 16,995 MW in 2008. As a result, PLN acknowledged that their reserve margin declined from 28% in 2003 to 21% in 2008, and are projected to decline to 14% in 2009. (Note: desired reserve margins are normally between 25 and 30 percent. PLN's numbers are based on declared capacity, rather than reliable capacity. Maintenance on plants can bring down actual capacity and reserve margins.)

PLN estimates that Indonesia needs over 23,000 MW in new capacity between 2005 and 2015 to prevent a long-term power crisis and restore its power reserve margin. Much of that new capacity will be fueled by gas and coal. PLN plans to raise natural gas use by the power sector from 17% in 2004 to 40% by 2015. By volume, this means an increase from 483 mmcf/d to 1.7 billion cubic feet per day (bcfd) in 2015.

Increasing gas consumption in the energy mix makes strong economic sense, particularly with current crude oil price levels. Petroleum-based fuels are expensive – about 6.2 cents per kilowatt hour (kWh), or 2.5 times more costly than gas. PLN spends about \$1.6 billion annually on oil-based fuels and estimates it can save up to \$1 billion per year by

switching to gas. This, however, requires a reliable gas infrastructure and a secure gas supply. The switch is an important element in restoring the financial health of Indonesia's power industry, although low electricity tariffs continue to undermine the industry. At the same time, it also has significant implications for Indonesia's export revenues derived from natural gas.

## Impediments to Domestic Gas Growth

In its Energy Blueprint, the Ministry of Energy and Mineral Resources plans to increase gas's proportion in the national energy mix to 30.6% by 2025 from the current 26.5%. However despite changes spurring gas demand, impediments limit domestic gas growth. The primary obstacles include a limited transmission and distribution system, financing limitations, and continued regulatory uncertainty. To address the inadequate state of gas transmission and distribution networks, state gas utility PGN started four new transmission projects to meet rising power sector demands for gas, as follows:

Projects	Length (km)	Capacity (mmscfd)	Completion
Grissik – W.Java	661	400	2007
Duri – Medan	521	250	2007
E. Kalimantan - Central Java	1,219	1,100	2007/2010
E.Java-W.Java	680	350	2008/2010

Source: PGN

In addition to these projects, the GOI is proposing to build an LNG receiving terminal in West Java, to process and distribute gas from existing LNG plants (Bontang), as well as future plants in Papua (Tangguh) and South Sulawesi (Donggi). PGN is extending its distribution network and plans to ship

compressed natural gas (CNG) over short to medium distances to remote areas. In addition, PGN is also investigating the feasibility of developing an integrated mini-LNG transportation system. The project will involve a mini-LNG receiving terminal located in Makassar, South Sulawesi, which will ship LNG from the Bontang LNG plant.

Many producers require explicit financial guarantees to sell gas domestically. The government's reluctance to provide such guarantees poses another obstacle to domestic gas growth, according to industry observers. In the power industry, a number of PSCs have requested that PLN provide standby letters of credit (SBLC) before investing in long-term gas supply agreements. According to industry analysts, PLN's credit availability with government-linked banks is limited. PLN has asked Bank Indonesia to exclude SBLCs from the legal lending limit to get around this obstacle. Some power analysts suggest that if PLN would permit higher returns on investment, companies would be willing to assume more of this risk themselves.

Another constraint to gas development is the absence of a competitive gas pricing system. Under the historic system, prices for gas supply contracts are negotiated on a field-by-field basis between Pertamina and individual producers after the discovery of the gas field. Prices are fixed for a designated supply for the duration of the contract. Hence, the producer's price for gas is different for each PSC.

Consumer prices are set on a cost-plus basis.

Currently, the negotiated gas price for power generation is far below the global average, in the range of \$4.50 to \$6 per mmbtu, compared to current global

natural gas prices, which average around \$11 per mmbtu in mid-2008. The World Bank and the Asian Development Bank (ADB) have urged Indonesia to adopt a pricing regime that creates greater incentives for companies to find and produce gas. A competitive domestic gas price would allow Indonesia to realize the full value and potential of its gas reserves. Without pricing changes, the domestic gas market provides few incentives for the exploration and development of gas fields that are too small to support LNG but more than adequate for domestic gas customers. A second major constraint is the absence of a predictable basis for forecasting the future value of gas, such as an indexed price formula. A final constraint has been the subsidy provided for alternative fuels.

## **Regulations Require Clarification**

The current regulatory environment sends mixed signals to investors which inhibits the exploration and development of potential gas reserves. Despite domestic market obligation (DMO) provisions in the 2001 Oil and Gas law promoting gas use and the issuance of downstream Regulation 36, industry players still do not see a clear set of "rules of the game." Industry players say that they want clarification of the exact DMO quantity and whether the government will honor existing PSC contracts. In addition, doubts about contract sanctity, contract extensions, security, and taxation hurt the gas investment climate.

The end result of this uncertainty, and the consequent lack of exploration, is stark. According to the American Chamber of Commerce, gas blocks signed before 1971 still account for nearly 60 percent of Indonesia's commercial reserves. Blocks

signed after 1990 account for only 14 percent of commercial reserves.

## **Expanding Future Production**

Indonesia is blessed with abundant reserves, although there is a geographical mismatch between location of gas reserves and energy needs. The Ministry of Energy and Mineral Resources estimates total gas demand between 2008-2018 will reach 22,200 BSCF, while supply is estimated at 13,231 BSCF. In the long-term, Java's additional gas supply will rely on the development of gas fields outside the island and the completion of pipeline and LNG projects.

In addition to geographical constraints, other barriers to developing Indonesia's gas resources include the availability of financing, long project lead-time, and the lack of incentives to explore and exploit gas reserves.

Private sector participants identified the following key areas to increase development in the gas sector:

- Increase incentives to find and produce natural gas;
- Harmonize conflicting laws and eliminate the lengthy bureaucratic process for project approval;
- Clarify the gas DMO obligation;
- Promote private investment and ownership, through price stability and an equitable cost recovery mechanism;
- Address gas reliability concerns for those firms that invest in major gas facilities; and

- Provide government guarantees for gas payment by state owned enterprises.

## **A Trans-ASEAN Gas Pipeline?**

ASEAN's Energy ministers signed a memorandum of understanding on July 5, 2002 to push ahead with a \$7 billion natural gas pipeline project in a bid to alleviate concerns over supply shortages and to improve economic development. Minister of Energy and Mineral Resources Purnomo Yusgiantoro said the project's masterplan has been completed, and a council will soon be established to oversee the completion of the gas grid. Purnomo said more than 1,000 kilometers of the grid have already been constructed. ASEAN has identified the need for 4,500 kilometers of pipeline to complete the project, which might reach 6,000 kilometers, if the necessary new Indonesian domestic pipelines are included.

Purnomo said Indonesia will be a major player in the trans-ASEAN gas pipeline project because of its enormous gas reserves. ASEAN members have previously said that a regional natural gas pipeline, as well as an electricity grid, is the most efficient way for ASEAN countries to prevent a future energy crisis. Indonesia has already developed several pipelines - from West Natuna to Singapore, West Natuna to Malaysia, and from South Sumatra to Singapore. It is also studying a possible pipeline from West Natuna to Thailand.

ASEAN members will develop regulations and frameworks for the cross-border supply, transportation and distribution of natural gas throughout the region. This will be supervised by a

future ASEAN Gas Consultative Council. The key reason behind the gas grid is the need to reduce oil consumption and to provide backup energy sources for ASEAN members. ASEAN members hope to complete the gas grid by 2020. However, recent press reports indicate that delays in developing Natuna Block D Alpha have delayed the project.

### **Integrated Transmission System**

The South Sumatra pipeline is part of state gas company PGN's plan for an integrated gas transmission pipeline system, known as the Integrated Gas Transportation System (IGTS). The IGTS will eventually link the islands of Sumatra, Java, and Kalimantan via a 4,200-kilometer integrated gas pipeline. Reputed to be Southeast Asia's longest, the pipeline is being funded by the World Bank, ADB, other institutions, as well as PGN's own internal funding. PGN's network will flow 2.2 bcfd of natural gas after its scheduled completion in 2010.

#### ***Project One - Grissik-Duri Pipeline***

Phase One became operational in 1998. The 544-kilometer Grissik/Duri gas transmission pipeline transports 310 mmcf/d of natural gas from the Grissik gas plant in ConocoPhillips Indonesia's Corridor PSC in South Sumatra. The project will supply Caltex's Duri Steam Flood Project in Central Sumatra for 15 years. ConocoPhillips is the producer, Caltex is the buyer, and PGN is the pipeline network owner.

The Grissik/Duri pipeline project is the first part of an 850-kilometer gas transmission pipeline to link South Sumatra to Singapore. Phase Two, which covers a 530-kilometer leg from Grissik to

Singapore by way of Batam Island, was completed in August 2003. Both the Grissik/Duri pipeline and the Grissik/Singapore pipeline have been included in the TransgasIndo pipeline consortium, jointly owned and operated by PGN and a joint venture among ConocoPhillips, Petronas, Talisman, and Singapore Petroleum.

#### ***Project Two: South Sumatra–West Java Pipeline***

This 1,100-kilometer pipeline project provides gas from ConocoPhillips and Pertamina fields in Sumatra to West Java power plants and industrial users. A combination of JBIC loans and proceeds from a PGN bond and IPO offerings funded the construction, which was completed in 2007.

Phase I of the project involved construction of a 450 kilometers pipeline from Pagardewa, South Sumatra to Cilegon and Serpong, West Java. Phase I provides 250 mmcf/d of gas from Pertamina's Pagardewa gas field and ConocoPhillips' Grissik field to the Muara Tawar, Tanjung Priok and Muara Karang gas-fired power plants in Jakarta.

Phase II connects Grissik to Pagardewa via a 270 km pipeline, a parallel line from Pagardewa to Labuhan Maringgai and a 190 km pipeline from Labuhan Maringgai to Muara Bekasi, and Rawamaju in West Java. Phase II can provide up to 600 mmcf/d. PGN completed the procurement tender for the project in 2005 and finished construction two months ahead of schedule in October 2007. This pipeline supplies natural gas from Pertamina's gas fields in Prabumulih to West Java industrial users.

In September 2007, the downstream regulator announced a tender worth \$269 million for a 220 km extension of the pipeline from Muara Bekasi to Cirebon. The government closed bidding for the project in February 2008 and aims to have gas flowing by 2010.

***Project Three: East Kalimantan-Central Java***

The most ambitious of the five projects, the 1,200-kilometer East Kalimantan-Java pipeline would transport up to 1.1 bcf/d of gas through a combined offshore and onshore pipeline stretching from Kuala Badak, East Kalimantan to Semarang, Central Java. PGN would partially fund the project from a bond and IPO offering. At an estimated cost of \$1.2 billion, PGN will need substantial outside financing. PGN completed the feasibility study of the project and announced the tender in December 2005. PT Bakrie Brothers won the tender in July 2006 and has been seeking financing and gas commitments since that time. Consequently, PGN did not meet its original target to begin project construction in 2007. It is doubtful that they will meet their other goal of flowing first gas in 2010, according to industry analysts and media reports.

***Project Four: East/West Java Pipeline***

This proposed project will involve construction of a 730 kilometers pipeline stretching from Gresik (East Java) to Cirebon and Muara Bekasi (West Java) along with a 300-kilometer East and Central Java distribution link. The pipeline will have the capacity to transport about 700 mmcf/d of natural gas and cost an estimated \$540 million. Currently PGN plans for project construction to start in 2008 with completion in 2010.

***Project Five: Duri – Dumai – Medan Pipeline***

An extension of the Grissik-Duri project, the 521-kilometer pipeline will transport gas from Duri, Riau to Medan, North Sumatra. The project will be the northern extension of an integrated Sumatra transmission network and supply gas to Asahan Power. PGN, Kondur Petroleum and Asahan Power signed an MOU in October 2004 for the sale of 80-140 mmcf/d gas through the pipeline. PGN plans to finance the estimated \$574 million project via internal and external finance lending. In March 2008, PGN pushed back the start date for construction to sometime in 2009.



## LNG AND LPG

Indonesia lost its title to Qatar as the world's leading exporter of LNG in 2006, according to media reports and industry analysts. Its share of world production dropped from 18.8% in 2005 to 14% in 2006. Indonesia exported 46.1 million tons of LNG in 2006, according to government data. LNG production at Arun and Badak (Bontang) was 22.4 million metric tons (MT) in 2006, a decrease from the 2005 production level of 23.7 million MT. Currently, Indonesia has the capacity to produce a total of 31.6 million tons of LNG at the Arun plant in North Sumatra and the Badak (Bontang) plant in East Kalimantan.

LNG is still one of the country's significant foreign exchange earners. LNG exports were valued at \$10.4 billion in 2006, a 14 percent increase compared with the \$9.13 billion earned in 2005. Japan, South Korea and Taiwan were the key markets for LNG.

**World LNG Trade, 2006**

Exporting	billion m3	Percent
Indonesia	29.57	14%
Malaysia	28.04	13%
Algeria	24.68	12%
Qatar	31.09	15%
Trinidad & Tobago	16.25	8%
Nigeria	17.58	8%
Australia	18.03	9%
Brunei	9.81	5%
Oman	11.54	5%
UAE	7.08	3%
USA	1.72	1%
Libya	0.72	0%
Egypt	14.97	7%
<b>Total</b>	<b>211.08</b>	<b>100%</b>

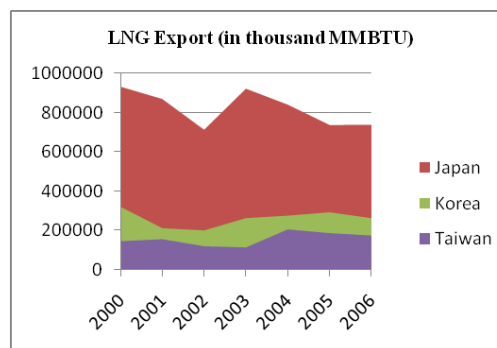
Source: BP Statistical Review

Indonesia signed its first long-term LNG contract in 1973, with the first shipment from Bontang in 1977 and the first shipment from Arun in 1978. Indonesia signed a number of additional LNG contracts between 1973 and 1995. Indonesia's LNG exports are under long-term contracts between Pertamina and its customers. Pertamina's role was reinforced in June 2004 when BP Migas appointed Pertamina as the sole sales agent for LNG sales to South Korea and Taiwan.

### New LNG Sales and Contract Extensions

LNG prices are on an upward trend. In its most recent contract extension signed with Indonesia, Japanese buyers agreed to pay as much as \$15.90/mmbtu, a large increase over the \$5.18/mmbtu they paid in 2004.

Indonesia did not gain the full benefit from rising global prices, as LNG exports have declined due to falling production, a costly domestic fertilizer support policy, and the more recent reorientation of gas for domestic use. Through 2007, the government cut delivery of a total of 72 cargoes to foreign buyers, especially Japan.



As compensation, in March 2008, Indonesia agreed to a contract extension with Japanese firms to export a total of 25 million MT over a period of 10 years through 2021, according to Pertamina executives in testimony before the national parliament in March 2008.

Indonesia will export 3 million MT in the first five years and 2 million MT per year in the subsequent 5 years. Under the existing Japanese contracts that expire in 2011, Indonesia is obliged to ship 12 million MT per year. The Japanese buyers agreed to pay US\$15.90 per mmbtu if the bench mark crude price is \$100 per barrel. The price will go up or down along with the changes in the crude price.

### ***Arun***

The Arun LNG plant is operated by the PT Arun Natural Gas Liquefaction Company, of which 55 percent is owned by Pertamina, 30 percent by Mobil LNG Indonesia Inc. (an ExxonMobil affiliate) and 15 percent by Japan Indonesia LNG Company (JILCO). ExxonMobil/BP Migas is the sole supplier of natural gas to Arun, whose production capacity is now about 6.4 million MT per annum. Aceh gas production peaked in 1995 and gas deliveries to the six-train PT Arun LNG plant then started on a steady decline. ExxonMobil has extracted about 90 percent of the gas reserves in the field and committed reserves will run out entirely in 2018. The Arun facility produced 5.6 million MT in 2004, a decline from 6.6 million MT in 2003, and is expected to discontinue operations in 2014.

Due to the normal decline in the Arun fields there is insufficient gas to supply all domestic fertilizer plants. The

government requested that ExxonMobil divert part of its gas production from elsewhere in Indonesia to fertilizer firm Pupuk Iskandar Muda (PIM). The result was a cut in Arun's delivery of export cargoes, which required the GOI to turn to the spot LNG market to meet its contractual commitment to export buyers. Arun's export commitment was 75 cargoes in 2005. The government needed to acquire between eight and ten LNG cargoes from abroad in 2005 to maintain gas supply to fertilizer plants and still comply with its LNG contractual requirements.

The Arun area fields include: the original Arun field; the South Lhoksukon A and D gas fields, located 15 kilometers from Arun; the Pase A and B gas fields, located north of Arun; and the North Sumatra Offshore (NSO) gas field. The NSO field sits 100 km offshore from the Arun LNG plant.

### ***Bontang***

The eight-train (A through H) Bontang facility in Badak, East Kalimantan is the largest LNG plant in the world and has 21.6 million MT of production capacity. The facility marked its 600<sup>th</sup> LNG shipment in November 2005.

The plant is operated by PT Badak NGL Company, which is 55-percent owned by Pertamina, 20-percent by Vico (which in turn is 50-percent owned by BP), 10-percent by TotalFinaElf, and 15-percent by Japan Indonesia LNG Company (JILCO). Gas is supplied from a production sharing arrangement among Pertamina, Chevron, Vico and Total. LNG production from the Bontang facility in 2004 declined to 19.6 million MT from 20.1 million MT in 2003.

In 1995, Pertamina signed two 20-year contracts for Bontang's "H" train with the Korea Gas Company and the Chinese Petroleum Corporation (Taiwan).

Indonesia also advanced plans to build a ninth LNG train (train I) at the Bontang facility. The 3 million MT per year train is scheduled for 2007 and will increase annual production by 25 million MT.

Bontang experienced a variety of challenges that constrained its ability to provide gas for both LNG production and feedstock for national fertilizer plants in East Kalimantan. The three gas suppliers (Total, Vico and Chevron) experienced problems with underproduction or inconsistent production due to maintenance, accidents or low field performance, all of which led to gas supply shortages to the plant. Despite shortfalls, the GOI diverted gas from Bontang's producers so that Pertamina could sell subsidized gas to a national fertilizer plant group and two small Japanese-owned plants. In 2005, the GOI renegotiated Bontang contracts, cutting 42 cargoes and leaving Bontang with 335 cargoes for export.

### ***Tangguh***

BP is the major shareholder and operator of the Tangguh LNG project, which encompasses three PSCs in the Berau-Bintuni Bay region of western Papua. The Tangguh gas fields contain 14.4 TCF of proven and certified natural gas reserves. The LNG processing plant will produce seven million MT of LNG per year from two initial processing trains. Following final Indonesian government approval in March 2005, BP appointed a consortium, composed of Kellogg Brown Root (KBR), JGC Corporation, and PT Pertamina, as contractors to build the

Tangguh project. BP Indonesia holds a 37.16% stake, with the balance shared by CNOOC (16.96%), Mitsubishi (16.30%), Nippon (12.23%), KG (10.00%), and LNG Japan (7.35%).

The Indonesian government and BP have secured four market commitments for 7.65 million MT of Tangguh's LNG. In July 2004, the project won a contract to supply 550,000 MT of LNG per year to South Korean steel maker POSCO for 20 years. In August 2004, the project also signed another supply contract of 800,000 MT of LNG per year to South Korea's K Power for a 20-year term starting 2006. In addition, in 2002 the project was awarded a contract to supply 2.6 million MT of LNG per year to China's Fujian province for a 25-year term beginning in 2007. It also signed a HoA in 2003 with the U.S. firm Sempra Energy to supply 3.7 million MT of LNG for a 20-year term beginning in 2007. BP says Tangguh gas will begin flowing in late 2008 with deliveries to customers commencing in early 2009.

### **Liquid Petroleum Gas**

LPG production declined precipitously to 1.279 million MT in 2006 from 1.818 million MT in 2005, while exports declined from 1.015 million MT in 2005 to 254,700 MT in 2006. Declining exports to Japan accounted for the largest drop from 865,000 MT in 2005 to 39,900 MT in 2006.

Indonesia scrapped a plan to increase gradually the price of 12kg and 50 kg canisters of LPG to market levels in September 2008, despite plans to keep subsidized prices on 3 kg canisters. Plans to make LPG a non-subsidized alternative to kerosene are on hold.

## PETROCHEMICALS AND FERTILIZERS

### Introduction

The Indonesian petrochemical industry is progressing slowly towards recovery after the late-1990s economic crisis. The industry has relied on an abundant natural resource base of crude oil and natural gas and a large and growing market of more than 240 million people. It has been constrained by a lack of integration between the petroleum and petrochemical industries. The Asian economic crisis damaged the petrochemical industry. Many of the remaining companies have heavy debts. Indonesia's anemic investment climate significantly limits further interest in this sector. Since 2005 petrochemical producers have also faced high prices for basic materials as a result of soaring global crude prices.

In the last several years Indian, Japanese, and Chinese investors have expressed strong interest in investing in this sector, according to media reports, though actual investments have been slow in materializing.

The sector players have called for additional production capacity as growing demand and limited capacity have translated into increased imports of a number of key petrochemicals. They contend that the country is missing opportunities for job creation, foreign exchange revenues and a domestic buffer from international price changes. The Tuban petrochemical project completion in 2006 gave the sector a boost. The complex will add to Indonesia's production capacity of paraxylenes, benzene, and toluene.

In 2005, PT Petrokimia Nusantara Interindo (PENI), Indonesia's largest polyethylene producer, was acquired by Malaysia's Titan Chemical Corp, an integrated petrochemical producer controlled by Malaysia's state-owned asset management company Permodalan Nasional Bhd. Japan's Marubeni Corporation also divested its shareholding in Chandra Asri Petrochemical Complex (CAPC) to Commerzbank International Trust Singapore in 2005. CAPC was one of the companies restructured as a result of the financial crisis. CAPC owed \$463.6 million to the Indonesian Bank Restructuring Agency (IBRA) and \$731 million to private lenders, led by Marubeni Cooperation of Japan. In 2002, Marubeni agreed to convert \$147 million of its loans into a 24.59% equity share in CAPC. CAPC produces ethylene, propylene and polyethylene.

### Tariff Reduction

The GOI had previously committed to reduce petrochemical product tariffs to comply with the Common Effective Preferential Tariff (CEPT) of the ASEAN Free Trade Agreement (AFTA). In 1998, the government lowered import tariffs on petrochemical products (ethylene, propylene, styrene, polyethylene, polypropylene, polystyrene and polyvinyl chloride) and their derivatives from 25-35% down to 10-20%, effective January 1, 1999.

Ministry of Finance Decree No. 187/2000 in May 2000 went a step further by reducing import tariffs for 708 items, including upstream and midstream petrochemical products. This decree lowered import duties on selected

petrochemical products (ethylene, propylene, styrene, polyethylene, polypropylene, and their derivatives) as of June 1, 2000. In 2003 the GOI decided to postpone further reductions, however, saying that current rates already were quite low at a range between 0-10%.

**Import Tariffs, Selected Petrochemical Products (percent)**

Product	MFN Rate	CEPT Rate
Ethylene	5	5/0
Propylene	5	5/0
Polyethylene	10/5	5/0
Polypropylene	10/5	5
Polysterene	10/5	5
Polyvinyl Chloride	5	5

## Major Products

### *Benzene & Paraxylene*

Benzene and paraxylene have long been produced by Pertamina's Cilacap refinery with a declared production capacity of 108,000 tons per year and 252,000 tons per year, respectively. In 2006, Tuban Petrochemical opened a plant with a capacity of 300,000 tons of benzene and 500,000 tons of paraxylene per year. Due to significant domestic and international demand, the Tuban plant has been producing above capacity for paraxylene.

### *Pure Terephthalic Acid (PTA)*

Since 1998, five PTA plants have been in operation – Pertamina Plaju Aromatic, Bakrie Kasei PTA, Amoco Mitsui PTA Indonesia, Polysindo Eka Perkasa and Polyprima Karya Reksa, with a combined capacity of 1.98 million MT per year. PTA is produced from paraxylene and is used as raw material for polyester production in the textile industry. The growth of Indonesia's textile industry and the demand for polyester raw materials provided the stimulus for Pertamina and private investors to enter into PTA

production. The bulk of production is sold to Indonesian polyester makers and for export purposes. In 2006 PTA production increased 5% to 1.845 million MT from 1.76 million MT in 2005.

Three Japanese partners led by Mitsubishi Kasei Corp. own Bakrie Kasei, the largest PTA producer in Indonesia with a total capacity of 640,000 tons per year. (PT Bakrie Brothers sold its 20% share in the company to its former partners in late 2000). Bakrie Kasei's first PTA production unit commenced operation in 1994 and the second unit in 1996.

Amoco-Mitsui PTA Indonesia, a joint venture of Amoco Chemical (50%), now incorporated into BP, Mitsui Petrochemical Industries (45%) and Mitsui Company (5%), commissioned a PTA factory in Merak, West Java, in February 1998, with an annual production capacity of 420,000 MT per year. PT Polysindo Eka Perkasa of the Texmaco Group started a PTA plant operation in April 1997 with a capacity of 340,000 MT per year. PT Polyprima Karyareksa of the Napan group commenced commercial production in 1997 with an annual capacity of 350,000 tons. Pertamina Plaju Aromatics has an annual capacity of 225,000 tons.

### *Polypropylene (PP)*

Three plants, with a combined production capacity of around 600,000 tons per year, produce polypropylene, which is a basic feedstock for plastic packaging material made from propylene. The three are Pertamina's plant in Plaju, South Sumatra (annual production capacity of 45,000 tons), Tri Polyta Indonesia's plant in Cilegon, West Java (annual capacity of 360,000 to 380,00 tons) and Polyrama Propindo, Indramayu, West Java (annual

capacity of 180,000 tons). Production of PP increased 2% to 536,000 tons in 2006.

### ***Ethylene***

Chandra Asri Petrochemical Center (CAPC) is the only ethylene producer in Indonesia, with an annual capacity of 550,000 tons. Actual production in 2006 of 490,000 tons (89% utilization) is well below the country's annual demand of over 900,000 tons. As a result almost half of ethylene demand is supplied through imports.

### ***Polyethylene (PE)***

Indonesia has a PE production capacity of 750,000 tons from its 2 producers, PT Petrokimia Nusantara Interindo (PENI) and CAPC. Indonesia's first polyethylene plant, PT PENI in Merak, West Java, came on stream in 1993, with an annual production capacity of 250,000 MT. In August 1998, the company completed its expansion project and increased its annual capacity to 450,000 MT. CAPC's polyethylene production capacity is 300,000 MT.

National production was below capacity at 470,000 tons in 2006, a plant utilization of 63%. Current demand for propylene is around 700,000 tons and demand for raw materials of plastics in Indonesia is growing around 8% per year.

### ***Methanol***

The country produced 690,000 tons of methanol in 2006, down 7% from 2005's 740,000 tons and a sharp drop from 2003's production of 792,000 tons. Prior to 1998, methanol was produced only by Pertamina's Bunyu Refinery, now operated by PT Medco Methanol Bunyu. PT Kaltim Methanol Industry in Bontang, East Kalimantan, came on stream in

1998, and brought Indonesian methanol annual production capacity to 990,000 MT. PT Kaltim Methanol has plans to be a major methanol supplier to Asia. The first shipment of methanol to Japan was in March 1998. PT Kaltim Methanol is 85% owned by Japan's Sojitz Corporation (formerly Nissho Iwai Corporation). The plant has an annual production capacity of 660,000 MT.

## **The Projects**

The long-suspended \$2.3 billion Trans Pacific Petrochemical Indonesia (TPPI) project in Tuban, East Java was completed in 2006. It resumed construction in June 2004 following approvals from Japanese creditors and a GOI guarantee letter for the project in 2003. The loan facility provided Pertamina with \$400 million to fund the remainder of the project.

The Tuban Petrochemical Project is owned by Trans Pacific Petrochemical Indonesia (TPPI), originally a subsidiary of the Tirtamas Group. The group transferred majority ownership of the project to the state asset management company PPA (formerly IBRA) in 1998 after the conglomerate failed to repay \$635 million in bank loans. At the time of suspension, Tirtamas had already completed 65% of construction. PPA and Tirtamas set up a new company, Tuban Petro, to manage the restructuring process. Consequently through Tuban Petro, PPA and Pertamina hold 59.5% and 15% respectively in the project. Other stakeholders include Siam Cement of Thailand, Sojitz Corporation (formerly Nissho Iwai) and Itochu Corporation. Recent news reports have indicated that Pertamina is interested in buying PPA's share of TPPI.

The completed plant has an annual production capacity of 3.6 million tons per year. The complex produces aromatic products consisting of paraxylene (500,000 tons), benzene (300,000 tons), toluene (100,000 tons), and orthoxylene (120,000 tons). It has greatly reduced imports of these products and can potentially replace of \$1 billion of imports per year, according to GOI officials. In addition to the above products, the complex also produces 1 million tons of naphtha and 1.6 million tons of kerosene and diesel.

## **Fertilizers**

Installed production capacity at Indonesia's 20 fertilizer plants, operated by five state-owned companies, is 7.85 million MT of urea and 1.95 million MT per year of other fertilizers (SP-36, ZA, and NPK). Fertilizer production in 2007 was 7.9 million MT, up from 7.0 million MT in 2006, although urea production, at 5.9 million MT, has been flat for years, due largely to declining production of natural gas near many fertilizer plants.

Increasing fertilizer production is in line with rising demand this decade. Designated a strategic commodity, the GOI requires state-owned fertilizer companies to focus on meeting domestic demand first, rather than exports. As a result they exported no fertilizer in 2006 and 2007 exports were only 690,000 MT of urea. Production of non-urea fertilizer is insufficient to meet domestic demand, and fertilizer imports jumped by 20% or more than 2 million tons in 2007. The largest category of imports was potassium chloride, which is used as an additive to enhance the performance of other fertilizers. It is mainly used by soybean, tobacco and tea producers.

The fertilizer industry used around 205 BSCF of natural gas in 2006. Until September 2006, the GOI gave natural gas to the industry at a subsidized price ranging from \$1 to \$3 per mmbtu. Currently, the GOI gives the subsidy to each supplier based on the difference between cost of goods sold (COGS) and the retail price. Despite strong domestic and foreign demand for fertilizer, the industry is struggling for survival.

Difficulties in obtaining adequate gas supplies for fertilizer plants in Indonesia has become more severe in the past few years, leading ultimately to the shuttering of the production line at ASEAN Aceh Fertilizer (AAF) plant in 2003 and its liquidation in August 2005. AAF began its production in 1983, with shares controlled by Indonesia (60%), Malaysia (13%), the Philippine (13%), Thailand (13%), and Singapore (1%). Its plant had a capacity of 1.6 million tons per year.

At the end of 2007, the state-owned fertilizer company PT Pupuk Sriwijaya (Pusri) said it was continuing with its four-year, \$2.8 billion upgrade plan for its four plants. As part of the plan, they intend to switch from natural gas to coal to cut costs.

In January 2008, West Kalimantan government officials announced their intention to build the world's largest organic fertilizer plant with a peak production capacity of 300,000 tons per year, according to official Indonesian government media. The plant will begin operations in mid-2008 with an initial production level of 30,000 tons per year. The plant will rely mainly on chicken droppings for its feedstock.



# APPENDIX 1: KEY ECONOMIC INDICATORS

## APPENDIX 1.1: DOMESTIC ECONOMY, TRADE AND INVESTMENT

	2001	2002	2003	2004	2005	2006
Population (Mln)	208	211	213	216	219	222
GDP at current prices (Rp Trillion)	1,684	1,898	2,087	2,303	2,730	3,338
Real GDP growth (%)	3.4	4.3	4.5	5.1	5.6	5.5
Avg. Exchange Rate (Rp/\$)	10,265	9,220	8,520	8,939	9,705	9,130
GDP (\$Bln)	141	174.7	209.7	257.6	281.3	365.6
GDP per capita (\$)	679	829	985	1,182	1,277	1,663
Gov't Spending (as % of GDP)	20.2	20.4	18.1	18.6	20.7	19.4
Consumer Price Inflation (%)	12.6	10.0	6.0	6.4	17.1	6.6
Foreign and Domestic Debts (\$Bln)	135.6	147.6	138.2	206.9	200.2	204.6
- Foreign Debts	71.4	74.7	81.7	137.4	133.5	128.7
- Domestic Debts	63.4	72.9	56.6	69.5	66.7	75.9
Debt to GDP Ratio (%)	93	72	58.3	80.3	71.2	56.0
Unemployment (%)	9	10	9.5	9.7	10.3	9.75
<b>International Trade (US\$Million)</b>						
<b>Exports – Total</b>	<b>57,365.0</b>	<b>59,165.4</b>	<b>64,108.9</b>	<b>72,164.4</b>	<b>85,565.7</b>	<b>100,690.3</b>
Growth Rate of Total Exports (%)	-12.3	3.1	6.8	12.6	18.6	17.7
Oil and Gas	12,560.0	12,858.2	15,233.5	17,684.0	19,249.1	21,188.3
Oil and Gas as % to total	21.9	21.7	23.8	24.5	22.5	21.0
Non-Oil and Gas	44,805.0	44,896.0	47,380.4	54,482.0	66,316.6	79,502.0
<b>Major Export Markets</b>						
Japan	13,010.0	12,045.0	13,603.5	15,962.1	9,618.8	12,204.4
USA	7,749.0	7,559.0	7,373.7	8,767.1	9,456.0	10,657.5
Singapore	5,364.0	5,349.0	5,349.1	5,997.9	7,066.9	7,811.0
China	2,200.7	2,902.9	3,802.5	4,604.7	3,895.2	5,450.0
European Union	7,745.0	7,898.0	7,956.8	8,969.1	10,145.8	11,960.8
Growth Rate, Exports to US (%)	-9.4	-1.3	-2.5	18.9	7.9	12.7
<b>Imports – Total</b>	<b>34,668.0</b>	<b>35,652.0</b>	<b>39,546.9</b>	<b>50,615.0</b>	<b>57,547.3</b>	<b>61,078.1</b>
Growth Rate of Total Imports (%)	2.6	2.8	10.9	28.0	13.7	6.1
<b>Major Country of Origin</b>						
Japan	4,690.0	4,409.0	4,228.3	6,081.6	6,869.7	5,475.3
China	1,842.7	2,427.4	2,957.5	4,101.3	4,560.3	5,503.7
USA	3,207.0	2,640.0	2,694.8	3,225.9	3,797.2	3,973.0
Thailand	986.0	1,190.7	4,155.1	2,771.6	3,050.9	2,936.3
Singapore	3,147.0	4,100.0	4,155.1	6,082.8	2,915.2	3,706.0
European Union	4,047.0	3,576.0	3,554.2	5,359.0	5,731.2	5,986.8
Growth Rate, Imports from US (%)	-5.9	-18.8	2.1	19.7	17.7	4.6
<b>Trade Balance</b>	<b>22,697.0</b>	<b>23,513.4</b>	<b>24,562.0</b>	<b>21,549.4</b>	<b>28,018.4</b>	<b>39,612.2</b>
<b>Foreign Investment (US\$Mln) (a)</b>						
UK	723	720	966	1,317	1,529.1	1,038.1
Singapore	1,141	3,328	519	604	1,267.0	1,993.5
Japan	772	510	1,252	1,685	915.9	443.6
S. Korea	369	370	122	403	617.5	877
Australia	779	232	125	481	513.5	49
Malaysia	2,240	72	155	482	485.5	2231.9



## APPENDIX 1: KEY ECONOMIC INDICATORS

	2001	2002	2003	2004	2005	2006
Netherlands	89	244	99	259	472.3	78.6
China	6,055	33	248	22	204.7	126.9
Taiwan	72	38	137	69	129.5	218.5
Hong Kong	40	1,712	170	20	101.9	398.6
USA	73	468	174	133	91.3	161.6
Germany	43	36	171	30	40.1	20
Others	2,649	1,981	9,070	4,830	7,211	7,987
<b>TOTAL INVESTMENT APPROVALS</b>	<b>15,045.00</b>	<b>9,744.00</b>	<b>13,207.20</b>	<b>10,334.30</b>	<b>13,579.3</b>	<b>15,624.6</b>
<b>Oil and Gas Investment (b)</b>	<b>4,202.00</b>	<b>3,418.00</b>	<b>5,305.00</b>	<b>5,558.00</b>	<b>8,167.00</b>	<b>8,524.00</b>

Source: Migas, BPI, State Budget

(a) Figures are investment approval and do not include investment in the oil and gas sector

(b) Petroleum company expenditures

## APPENDIX 1.2: GOVERNMENT BUDGET (Rp Trillion)

	2003 Revised Budget	2004 Audited Budget	2005 Audited Budget	2006 Audited Budget	2007 Audited Budget
Total Revenues	336.155	403.105	493.919	636.154	706.110
Tax revenues	254.140	280.559	347.031	409.203	490.989
Non-tax revenues	82.015	122.546	146.888	226.951	215.121
Natural resources	59.295	91.543	110.467	167.474	132.893
Oil and gas	56.095	85.259	103.762	158.086	124.784
Non-oil and gas	3.200	6.284	6.705	9.388	8.109
Others (a)	22.720	31.003	36.421	59.477	82.228
Grants	-	0.262	1.305	1.834	1.698
Expenditures	342.696	426.715	511.619	666.212	757.651
Central Government	253.714	296.992	361.155	440.032	504.625
Routine	163.119	191.725	207.501	199.516	224.744
Subsidies (b)	25.465	91.529	120.765	107.432	150.215
Development (c)	65.130	13.738	32.889	133.084	129.666
Transfer to Region	88.982	129.723	150.464	226.180	253.026
Balance	(6.541)	(23.610)	(17.700)	(30.058)	(51.541)

Source: Department of Finance

(a) Include profit transfer, other non tax revenue and BI surplus

(b) Includes fuel subsidy

(c) Includes social assistance expenditure

## APPENDIX 1: KEY ECONOMIC INDICATORS

### APPENDIX 1.3: BALANCE OF PAYMENTS (US \$ Billion)

	2000	2001	2002	2003	2004	2005	2006
Exports (fob)	65.4	57.4	59.2	64.1	72.2	87.0	103.5
- Oil/Gas	15.1	12.6	12.9	15.2	17.7	20.2	22.9
- Non-Oil/Gas	50.3	44.8	46.3	48.9	54.5	66.8	80.6
Imports (fob)	-40.4	-34.7	-35.7	-39.5	-50.6	-69.5	-73.9
- Oil/Gas	-6	-15.8	-6.7	-7.8	-11.2	-16.0	-16.2
- Non Oil/Gas	-34.4	-28.9	-29.0	-31.7	-39.5	-53.4	-57.7
Services	-9.8	-9.9	-9.9	-11.7	-10.9	-9.1	-10.1
- Transportation	-4.3	-4.2	-4.1	-4.0	-3.2	-4.6	-6.1
- Travel	1.8	1.9	2.0	1.0	1.3	0.9	0.8
- Other	-7.2	-7.6	-7.8	-8.7	-8.9	-5.5	-4.9
Income (net)	-8.4	-6.9	-7	-6.1	-8.8	-12.7	-14.3
- Direct Investment	-3.6	-3.2	-3.2	-2.7	-5.4	-9.3	-10.1
- Portfolio Investment	1.1	1.2	0.8	0.7	0.7	-0.5	-1.5
- Other Investment 1)	-6.0	-5.0	-4.6	-4.1	-4.0	-2.9	-2.6
Current Transfers	1.2	1.0	1.3	1.5	1.1	4.8	4.9
<b>CURRENT ACCOUNT</b>	<b>8.0</b>	<b>6.9</b>	<b>7.8</b>	<b>8.1</b>	<b>3.1</b>	<b>0.5</b>	<b>10.1</b>

Source: Bank Indonesia

### APPENDIX 1.4: SELECTED FOREIGN EXCHANGE RATE AGAINST RUPIAH

End of period	US\$	Yen	Aus\$	Sing\$	Can\$	UK Pound	Euro
1996	2,383	21	3,310	1,705	1,745	4,037	-
1997	4,650	36	4,923	2,773	3,247	7,709	-
1998	8,025	70	4,923	4,836	5,182	13,336	-
1999	7,100	70	4,622	4,260	4,886	11,495	7,148
2000	5,995	84	5,319	5,539	6,389	14,300	8,912
2001	10,400	79	5,309	5,620	6,544	15,080	9,188
2002	8,940	75	5,065	6,454	5,672	14,335	9,369
2003	8,465	79	6,347	4,977	6,541	15,076	10,643
2004	9,290	95	7,242	5,686	7,717	17,889	12,652
2005	9,830	88	7,207	5,907	8,448	16,947	11,733
2006							
January	7,050	8,436	7,050	5,768	8,177	16,616	11,361
February	6,801	8,356	6,801	5,679	8,090	16,052	10,933
March	6,378	8,123	6,378	5,596	7,757	15,821	10,893
April	6,625	8,111	6,625	5,543	7,805	15,797	10,990
May	7,036	8,667	7,036	5,849	8,385	17,354	11,858
June	6,909	8,532	6,909	5,854	8,383	17,050	11,822
July	6,945	8,350	6,945	5,742	8,023	16,892	11,568
August	6,946	8,295	6,946	5,787	8,206	17,334	11,676
September	6,907	8,267	6,907	5,819	8,310	17,340	11,732
October	7,009	8,182	7,009	5,833	8,095	17,316	11,585
November	7,197	8,318	7,197	5,937	8,052	17,855	12,068
December	7,134	8,001	7,134	5,879	7,774	17,697	11,858

Source: Bank Indonesia Mid-Rate

## APPENDIX 2: OIL AND GAS CONTRIBUTION TO THE ECONOMY

### APPENDIX 2.1: OIL AND GAS CONTRIBUTION TO DOMESTIC REVENUES (Rp Trillion)

FY	Domestic Revenues	Oil/Gas Revenues (a)	Oil /Gas as % total Revenue	Fuel Subsidy	Fuel Subsidy to Expenditure (%)
1992/93	48.9	15.3	31.4	0.7	1.4
1993/94	56.1	12.5	22.3	1.3	2.3
1994/95	66.4	13.5	20.4	0.7	1
1995/96	71.6	16.1	22	-	-
1996/97	78.2	20.1	25.7	1.4	1.8
1997/98	108.2	35.4	32.7	9.8	9.1
1998/99	157.5	41.4	26.3	27.2	18.2
1999/00	187.8	58.5	31.2	35.8	17.8
2000 b)	204.9	85.3	41.6	51.1	25.0
2001	286.8	89.7	31.3	68.4	23.8
2002	301.9	74.2	24.6	30.3	10.0
2003	340.7	80.4	23.6	30	8.0
2004	407.8	86.0	21.1	69.0	15.8
2005 b)	379.6	60.7	16.0	19.0	4.8
2005 R c)	484.5	146.3	30.2	76.5	14.9
2005 R d)	540.1	175.8	32.5	89.2	15.8
2006 b)	625.2	183.8	29.4	54.3	8.4
2007	690.0	145.0	21.0	56.6	7.6

Source: Department of Finance

a. April - December (beginning in 2000 GOI changed fiscal year from Apr-Mar to Jan-Dec)

b. Budget

c. Budget Revision

d. 2nd Budget Revision

### APPENDIX 2.2: OIL AND GAS CONTRIBUTION TO FOREIGN TRADE (US\$ Million)

Year	Exports (FOB)			Imports (CIF)		
	Oil & Gas	Total	Oil & Gas (%)	Oil & Gas	Total	Oil & Gas (%)
1996	11,722	49,815	23.5	3,596	42,929	8.4
1997	11,623	53,444	21.8	3,924	41,680	9.4
1998	7,872	48,848	16.1	2,654	27,337	9.7
1999	9,792	48,665	20.1	3,681	24,003	15.3
2000	14,367	62,124	23.1	6,020	33,515	18.0
2001	12,636	56,321	22.4	5,472	30,962	17.7
2002	12,858	59,165	21.7	7,241	38,310	18.9
2003	15,234	64,109	23.8	8,457	42,196	20.0
2004	17,682	72,164	24.5	12,136	55,009	22.1
2005	19,232	85,660	22.5	17,458	57,701	30.3
2006	21,188	100,690	21.0	18,975	61,078	31.1

Source: BPS (Statistic National Bureau)

## APPENDIX 3: SUMMARY OF OIL AND GAS STATISTICS

### APPENDIX 3: STATISTICS SUMMARY

	2000	2001	2002	2003	2004	2005	2006
<b>RESERVES</b>							
<b>Oil ( Million Barrels)</b>	<b>9,612.9</b>	<b>9,753.4</b>	<b>9,746.4</b>	<b>9,094.2</b>	<b>8,613.0</b>	<b>8,627.0</b>	<b>13,066.4</b>
Proven	5,122.7	5,094.6	4,721.8	4,436.6	4,300.7	4,187.5	4,439.5
Possible	4,490.1	5,521.6	5,024.6	4,657.6	4,312.3	4,439.5	8,627.0
<b>Gas (TSCF)</b>	<b>170.3</b>	<b>168.2</b>	<b>176.6</b>	<b>168.2</b>	<b>188.3</b>	<b>185.8</b>	<b>274.3</b>
Proven	94.7	91.9	90.3	92.1	97.8	97.3	88.5
Possible	75.6	75.5	86.3	76.1	90.6	88.5	185.8
<b>EXPLORATION</b>							
New contracts signed	5	10	1	15	17	9	9.0
Contracts extended	2	2	-	-	1	1	1
Totally relinquished contracts	10	8	-	-	-	-	-
Seismic (1000 Km)	165,932	284,300	n/a	12,086	15,041	18,486	14,962
No. exploration wells drilled	82	80	73	33	36	68	35
Oil and gas discoveries	34	17	12	14	22	12	5
No. exploration rigs	32	24	29	20	38	37	26
Total development wells	949	854	736	766	447	304	304
No. of development rigs	93	59	65	n.a	118	n.a	n.a
Oil firms expenditures (US\$Mln)	3,605	4,202	3,418	5,305	5,558	8,167	8,524
Exploration & devel't	758	1,158	1,076	1,409	1,744	2,582	2,827
Production	2,433	2,615	1,676	3,458	3,204	4,769	4,901
Administrative	413	429	666	438	610	816	796
<b>PRODUCTION</b>							
Crude & condensate (1,000 Barrels)	517,547	489,306	456,944	418,582	401,110	387,654	367,121
Average (1,000 B/D)	1,414	1,344	1,252	1,147	1,094	1,062	1,006
Crude oil	1,272	1,214	1,120	1,013	966	935	883
Condensate	142	130	132	134	129	127	122
Natural gas (BCF)	2,901	28,071	3,036	3,155	3,030	2,985	2,954
LPG (1000 MT)	2,088	2,188	2,099	2,024	2,016	1,819	1,279
LNG (1000 MT)	26,990	23,883	26,215	27,392	25,238	23,677	22,400
<b>EXPORTS</b>							
<b>Export Volume (1,000 Barrels)</b>							
Crude oil	195,266	216,474	185,925	158,045	149,042	133,998	115,755
Condensate	28,234	25,138	31,349	31,040	30,324	25,455	19,433
Refined products	67,085	55,118	55,490	56,267	64,501	46,987	37,193
LPG (1,000 MT)	1,306	1,484	1,268	1,085	1,034	1,015	255
LNG (MMBTU)	1,400,024	1,238,785	1,035,543	1,369,603	1,322,415	1,217,829	1,176,288
<b>Export Values (US\$Million)</b>	<b>15,155</b>	<b>12,663</b>	<b>11,996</b>	<b>13,941</b>	<b>8,550</b>	<b>10,047</b>	<b>21,411</b>
Crude & Condensate	6,282	5,650	4,929	5,402	6,458	8,137	8,211
Refined products	1,676	1,249	1,060	1,623	1,750	1,900	2,688
LNG	6,802	5,375	5,595	6,586	7,722	9,132	10,386
LPG	394	389	412	330	334	475	126

## APPENDIX 3: SUMMARY OF OIL AND GAS STATISTICS

	2000	2001	2002	2003	2004	2005	2006
<b>IMPORT</b>							
<b>Import Volume (1,000 Barrels)</b>	<b>170,004</b>	<b>202,500</b>	<b>230,076</b>	<b>241,619</b>	<b>302,913</b>	<b>283,953</b>	<b>249,611</b>
Crude oil	79,978	112,878	124,148	135,238	148,490	118,303	116,230
Oil products	90,026	89,622	106,928	106,381	154,423	165,650	133,381
<b>Import Values (US\$Million)</b>	<b>5,290</b>	<b>5,430</b>	<b>6,526</b>	<b>7,480</b>	<b>11,646</b>	<b>17,083</b>	<b>17,961</b>
Crude oil	2,304	2,852	3,217	4,085	5,792	6,504	7,745
Oil products	2,986	2,577	3,309	3,395	5,854	10,579	10,216
<b>FUEL CONSUMPTION</b>							
<b>Fuel Consumption by Sector (Million Liters)</b>	<b>54,825</b>	<b>55,891</b>	<b>57,797</b>	<b>59,865</b>	<b>64,651</b>	<b>64,741</b>	<b>42,085</b>
Transport	25,548	26,248	27,329	28,596	32,572	32,693	20,736
Industry	11,862	12,384	12,338	12,254	13,495	11,750	7,064
Household	12,407	12,242	11,625	12,318	11,787	11,295	7,516
Electricity	5,008	5,017	6,505	6,696	6,797	9,003	6,769
<b>REFINING</b>							
<b>Refinery Input (1000 Barrels)</b>	<b>373,167</b>	<b>375,668</b>	<b>365,861</b>	<b>370,578</b>	<b>375,560</b>	<b>357,656</b>	<b>349,863</b>
Domestic crude/condensate	285,290	256,300	234,119	223,558	216,682	212,695	215,944
Imported crude	74,941	105,096	123,852	135,033	147,028	127,597	114,758
Feedstocks/others	12,936	431	7,890	11,987	11,850	17,363	19,161
<b>Refinery Output (1000 Barrels)</b>	<b>373,167</b>	<b>375,668</b>	<b>365,861</b>	<b>370,548</b>	<b>375,560</b>	<b>357,656</b>	<b>349,929</b>
<b>Subtotal Fuels</b>	<b>276,697</b>	<b>283,389</b>	<b>278,658</b>	<b>278,203</b>	<b>283,153</b>	<b>268,529</b>	<b>254,003</b>
Automotive diesel oil (ADO)	95,903	95,928	93,985	94,509	98,645	94,633	90,415
Kerosene	57,897	57,992	56,301	58,556	56,820	53,721	53,746
Mogas	70,645	73,150	73,287	72,690	75,277	73,145	71,407
Fuel oil	32,482	35,087	37,302	33,877	30,962	27,752	24,157
Industrial diesel oil (IDO)	8,140	9,109	8,431	7,795	10,202	8,559	3,607
Avtur	8,441	8,620	9,319	72	11,215	10,686	10,645
Avgas	6	51	33	10,704	32	34	26
<b>Subtotal Non-Fuel</b>	<b>96,300</b>	<b>92,515</b>	<b>86,310</b>	<b>92,345</b>	<b>92,407</b>	<b>89,127</b>	<b>95,927</b>
LSWR	38,618	34,211	28,363	32,185	29,189	28,965	31,070
Naptha	16,647	20,180	16,230	18,154	18,737	21,216	25,406
LOMC	1,666	143	0	-	0	0	-
LPG	8,378	8,160	8,191	8,698	9,380	8,457	9,196
Asphalt	2,730	2,341	2,399	3,267	3,290	2,615	3,204
Lube base oil	2,676	2,712	2,252	2,867	2,823	2,404	2,734
Cokes	2,188	2,573	1,773	2,637	2,410	2,040	1,993
Others	3,083	3,244	2,659	2,716	3,584	4,984	6,328
Balance*	20,314	18,951	24,443	21,820	22,994	18,446	15,996

## APPENDIX 4: OIL RESOURCES AND RESERVES

### APPENDIX 4.1: DISTRIBUTION OF HYDROCARBON RESERVES

Location	1-Jan-05			1-Jan-06		
	Proven	Possible	Total	Proven	Possible	Total
<b>Oil and Condensate (million barrels)</b>	<b>4,187.5</b>	<b>4,439.5</b>	<b>8,627.0</b>	<b>4,370.3</b>	<b>4,558.2</b>	<b>8,928.5</b>
Aceh & North Sumatera	n/a	n/a	241.6	n/a	n/a	n/a
Natuna	n/a	n/a	400.1	n/a	n/a	n/a
Central Sumatra	n/a	n/a	4270.8	n/a	n/a	n/a
South Sumatra	n/a	n/a	950.8	n/a	n/a	n/a
West Java	n/a	n/a	685.9	n/a	n/a	n/a
E/C. Java	n/a	n/a	867.7	n/a	n/a	n/a
E/S. Kalimantan	n/a	n/a	879.3	n/a	n/a	n/a
Sulawesi	n/a	n/a	84.4	n/a	n/a	n/a
Irian Jaya/Maluku	n/a	n/a	244.3	n/a	n/a	n/a
<b>Natural Gas (trillion SCF)</b>	<b>97.3</b>	<b>88.5</b>	<b>185.8</b>	<b>94.0</b>	<b>93.1</b>	<b>187.1</b>
Aceh & North Sumatera	n/a	n/a	5.8	n/a	n/a	n/a
Natuna	n/a	n/a	53.6	n/a	n/a	n/a
Central Sumatra	n/a	n/a	7.8	n/a	n/a	n/a
South Sumatra	n/a	n/a	24.6	n/a	n/a	n/a
West Java	n/a	n/a	6.0	n/a	n/a	n/a
E/C. Java	n/a	n/a	10.4	n/a	n/a	n/a
E/S. Kalimantan	n/a	n/a	48.8	n/a	n/a	n/a
South Sulawesi	n/a	n/a	4.6	n/a	n/a	n/a
Irian Jaya	n/a	n/a	24.2	n/a	n/a	n/a

Source: Migas-Exploration

### APPENDIX 4. 2: OIL AND GAS RESERVES AND RESOURCES

Reserves and Resources	1-Jan-05		1-Jan-06	
	Oil (Bln Brl)	Gas (TSCF)	Oil (Bln Brl)	Gas (TSCF)
<b>Reserves</b>	<b>8.63</b>	<b>185.8</b>	<b>8.93</b>	<b>187.1</b>
Onshore	n/a	n/a	n/a	n/a
Offshore	n/a	n/a	n/a	n/a
<b>Resources</b>	<b>86.6</b>	<b>384.7</b>	<b>56.6</b>	<b>334.5</b>
Onshore	n/a	n/a	n/a	n/a
Offshore	n/a	n/a	n/a	n/a

Source: Migas-Exploration

## APPENDIX 5: EXPLORATION

### APPENDIX 5.1: SEISMIC ACTIVITY

(kms)

Year	Pertamina	PSC Onshore	PSC Offshore	Total
1995	1,795.0	6,086.0	54,667.0	63,547.0
1996	292.0	10,638.0	50,408.0	61,338.0
1997	1,064.0	96,951.0	371,183.0	469,198.0
1998	1,625.0	26,270.0	279,877.0	307,772.0
1999	2,023.0	27,334.0	145,901.0	175,258.0
2000	656.0	13,184.0	152,086.0	165,926.0
2001	3,613.3	3,769.3	7,502.2	14,884.7
2002	-	11,070.0	8,867.0	19,937.0
2003	1,923.0	10,518.0	1,568.7	14,009.7
2004	5,185.4	3,511.2	6,344.0	15,040.6
2005	4,821.0	1,356.5	12,309.0	18,486.5
2006	2,376.1	4,314.4	8,272.0	14,962.5

Source: Migas-Exploration

Data include 2D, 3D and 4D seismic activities

### APPENDIX 5.2: EXPLORATION DRILLING

Year	No. of Wells Completed	Discovery Wells		Success Ratio of Wells	Exploration Rigs
		Oil	Gas		
1995	80	16	16	53.3	43
1996	100	18	11	43.3	45
1997	100	14	14	40.6	40
1998	145	16	5	30.0	60
1999	89	10	9	41.3	46
2000	82	19	15	50.0	32
2001	80	11	6	36.2	24
2002	88	12	17	33.0	29
2003	33	8	6	42.4	20
2004	36	10	12	61.1	38
2005	68	7	5	43.8	37
2006	35	3	2	45.7	26

Source: Migas-Exploration

## APPENDIX 6: PRODUCTION

### APPENDIX 6.1: WORLD OIL PRODUCTION (mmbpd)

Country	1998	1999	2000	2001	2002	2003	2004	2005	2006	2006 % Share
<b>TOTAL WORLD</b>	<b>73,357</b>	<b>71,898</b>	<b>74,574</b>	<b>74,350</b>	<b>74,065</b>	<b>76,777</b>	<b>80,260</b>	<b>81,250</b>	<b>81,663</b>	<b>100.0</b>
<b>OPEC</b>	<b>30,912</b>	<b>29,423</b>	<b>30,974</b>	<b>30,105</b>	<b>28,503</b>	<b>30,384</b>	<b>32,927</b>	<b>34,068</b>	<b>34,202</b>	<b>41.9</b>
Saudi Arabia	9,370	8,694	9,297	8,992	8,664	9,817	10,584	11,114	10,859	13.3
Iran	3,803	3,550	3,766	3,680	3,420	3,852	4,081	4,268	4,343	5.3
Venezuela	3,510	3,248	3,321	3,210	3,218	2,987	2,980	2,937	2,824	3.5
UAE	2,556	2,290	2,492	2,429	2,159	2,520	2,667	2,751	2,969	3.6
Kuwait	2,176	2,000	2,105	2,069	1,871	2,238	2,424	2,643	2,704	3.3
Nigeria	2,163	2,028	2,104	2,199	2,013	2,185	2,508	2,580	2,460	3.0
Iraq	2,126	2,541	2,583	2,371	2,030	1,344	2,027	1,833	1,999	2.4
Algeria	1,461	1,515	1,579	1,562	1,681	1,857	1,933	2,016	2,005	2.5
Libya	1,480	1,425	1,475	1,425	1,376	1,488	1,607	1,751	1,835	2.2
Indonesia	1,520	1,408	1,456	1,389	1,288	1,179	1,126	1,129	1,071	1.3
Qatar	747	724	796	779	783	917	990	1,045	1,133	1.4
<b>Non-OPEC</b>	<b>42,445</b>	<b>42,475</b>	<b>43,600</b>	<b>44,245</b>	<b>45,562</b>	<b>46,393</b>	<b>47,333</b>	<b>47,183</b>	<b>47,462</b>	<b>58.1</b>
USA	8,010	7,731	7,733	7,670	7,626	7,454	7,241	6,895	6,871	8.4
Russia	6,169	6,178	6,536	7,056	7,698	8,543	9,285	9,552	9,769	12.0
Mexico	3,499	3,343	3,450	3,560	3,585	3,789	3,824	3,760	3,683	4.5
China	3,212	3,213	3,252	3,306	3,346	3,396	3,490	3,627	3,684	4.5
Norway	3,139	3,139	3,346	3,418	3,329	3,260	3,188	2,969	2,778	3.4
Canada	2,672	2,604	2,721	2,712	2,838	2,986	3,085	3,041	3,147	3.9
UK	2,793	2,893	2,657	2,476	2,463	2,245	2,029	1,809	1,636	2.0
Brazil	1,003	1,133	1,268	1,337	1,499	1,552	1,542	1,715	1,809	2.2
Others	11,948	12,241	12,637	12,710	13,178	13,168	13,649	13,815	14,085	17.2

Source: BP Statistical Review 2007



## APPENDIX 6: PRODUCTION

### APPENDIX 6.2: INDONESIAN CRUDE AND CONDENSATE PRODUCTION BY COMPANY (1000 B/D)

Company	1980	1999	2000	2001	2004	2005	2006
Akar Golindo						0.0	-
Amerada Hess/Energy Eq.	-	0.2	0.2	0.1	-	-	-
Babat Kukui Energy	-	-	-	0.1	0.0	0.0	-
Binatek Kruh			-	-	0.1	0.1	-
Binawahana Petrindo	-	0.9	1.1	1.5	2.2	2.2	-
BP	133.8	71.5	62.6	50.8	31.3	24.8	26.6
Bumi Siak Pusako	-	-	-	-	30.0	27.3	25.7
Chevron (Caltex)	760.5	746	705.9	643.2	507.0	471.4	446.8
Chevron (Unocal)	108.8	63.9	59.4	59.3	55.7	53.8	39.0
CNOOC	82.2	140.1	126.6	125.7	81.5	65.4	57.0
ConocoPhilips	25.5	109.5	87.9	83.2	44.1	73.0	64.1
Costa International	-	0.6	0.6	0.4	0.2	0.2	0.1
Energi Mega Persada						0.8	0.6
ExxonMobil	61.3	42.3	28.2	13.4	21.2	13.9	10.6
Golden Spike/Kodel	-	0.5	0.6	0.4	0.3	0.3	1.2
Haliburton/Citra PNP	-	1.5	2	2.8	1.5	1.5	-
Hargeulis			-	-	0.0	-	-
Indo Pacific (GFB) Resources	-	0.3	-	0.8	0.2	-	-
Insani Mitra Gelam			-	-	0.2	0.2	-
Intermega	-	0.6	0.7	0.7	0.5	0.5	-
Kalrez Pet./Santos	0.9	0.7	0.6	0.5	0.5	0.3	0.4
Kodeco	-	1.8	4.2	6.5	14.3	13.4	10.3
Kondur Pet.	-	16.9	14.9	13.8	9.9	9.3	9.2
Kufpec Indonesia					2.5	2.9	4.7
Lirik Petroleum	-	0.4	1.5	1.6	1.5	1.5	-
Matriks	-	-	-	-	-	-	-
Medco (Exspan)	38.9	37.5	67.2	77	54.0	54.2	45.2
Meruo Senami					0.1	0.1	-
Patrindo Persada Maju	-	-	0.2	3.9	0.1	0.0	-
Pearl Oil (Jambi EOR)					4.0	5.1	1.7
Perkasa Equatorial	-	2.7	3.1	5.3	5.4	4.8	-
Pertamina *	81.7	44.2	46.3	45.1	48.4	50.7	94.3
Petrochina	60.3	41.6	37.6	45.8	36.6	42.4	43.6
Petronusa Bumibakti	-	-	-	0.1	0.0	-	-
Petroselat			-	-	0.0	0.1	0.0
PilonaTanjung Lontar	-	-	1.5	1.2	1.0	0.9	-
Premier Oil/Amoseas	-	6.4	4.4	4.5	3.1	3.0	2.6
Radian Ramok	-	-	-	-	0.1	0.1	-
Ranya Energi Pamanukan			-	-	0.0	-	-
Retko Prima/Western Nusantara	-	-	0.3	0.4	0.7	0.7	-
Sea Union Energy/ Husky	-	6.8	6.2	6	5.4	5.2	-
Semco			-	-	0.4	0.8	-
Star Energy (CoPi Kakap)			-	-	8.2	7.2	7.0
Surya Raya Teladan	-	1.7	1.5	1.4	1.2	1.4	-
Talisman	-	20	14.6	13.8	10.6	9.5	3.5
Total	198.8	81.2	85.5	90	81.8	88.0	90.9
Vico	23.3	54.7	48.4	40.8	28.8	25.2	20.7
<b>TOTAL</b>	<b>1,576.0</b>	<b>1,500.3</b>	<b>1,414.1</b>	<b>1,344.0</b>	<b>1,094.4</b>	<b>1,062.0</b>	<b>1,005.6</b>

Source: Migas-Exploitation

\* Pertamina-owned fields

## APPENDIX 6: PRODUCTION

### APPENDIX 6.3: CRUDE AND CONDENSATE PRODUCTION BY AREA

(bpd)

Company/	Block/Area	Jan-Des 2005			Jan-Des 2006		
		Crude	Conden	Total	Crude	Conden	Total
Akar Golindo	Tuba Obi Timur - TAC	20	0	20			0
Amerada Hess	Lematang, S. Sumatra – PSC			0			0
Babat Kukui Energy	Babat Kukui, Jambi – TAC	27	0	27			0
Binatek Reka	Kruh, S. Sumatra – JOB	68	0	68			0
Binawahana Petrindo	Meruap - Jambi – TAC	2,153	0	2,153			0
BP	Kangean, East Java – PSC			0			0
	North West Java Sea - PSC	21,813	2,943	24,756	23,115	3,510	26,625
Bumi Siak Pusako	CPP, Riau – PSC	27,313	0	27,313	25,671	0	25,671
Chevron (Caltex)	CPP, Riau – PSC			0			0
	MFK, Riau – PSC	478	0	478	438	0	438
	Rokan, Riau – PSC	458,696	9,912	468,608	434,025	10,251	444,276
	Siak, Riau – PSC	2,264	0	2,264	2,044	0	2,044
Chevron (Unocal)	East Kalimantan – PSC	30,533	3,369	33,902	35,925	3,054	38,979
	Makassar – PSC	19,598	255	19,853			0
CNOOC	SE Sumatra Off. – PSC	65,355	0	65,355	57,003	0	57,003
ConocoPhillips	Aceh – PSC			0			0
	Grissik – PSC	2,013	5,448	7,461	2,035	5,196	7,231
	Jambi – EOR (Pearl Oil)			0	0	342	342
	Kakap - PSC (Star Energy)			0			0
	Natuna Sea, Off. – PSC	60,690	0	60,690	56,484	0	56,484
	Ramba – TAC	4,865	0	4,865			0
Costa/Japex	Gebang – JOB	150	0	150	98	0	98
Energi Mega Persada	Kangean, East Java – PSC	0	772	772	0	547	547
	Brantas - PSC	44	0	44	14	0	14
ExxonMobil	Aceh – PSC	0	13,912	13,912	0	10,607	10,607
Golden Spike	Pendopo – JOB	254	17	271	1,169	14	1,183
Halliburton Energy	South Sumatra – JOB	1,538	0	1,538			0

## APPENDIX 6: PRODUCTION

Company/	Block/Area	Jan-Des 2005			Jan-Des 2006		
		Crude	Conden	Total	Crude	Conden	Total
Haurgeulis	Haurgeulis - TAC			0			0
HED Indo. /Citra P.	Abad/Raja – EOR			0			0
Indo Pacific Res.	Bawean, E. Java Off. PSC			0			0
Insani Mitra Gelam	Sungai Gelam - TAC	173	0	173			0
Intermega	Irian Jaya – TAC			0			0
	Salawati – TAC	325	0	325			0
	Sele/Linda – TAC	132	0	132			0
Kalrez Petroleum	Bula Seram, Maluku – PSC	308	0	308	355	0	355
Kodeco	Poleng, Java Sea – TAC	2,393	0	2,393			0
	West Madura, Off – JOA	10,745	283	11,028	10,245	37	10,282
Kondur Petroleum	Malacca Str, Riau - PSC	9,328	0	9,328	9,182	0	9,182
Kuffpec	Seram, Maluku – PSC	2,851	0	2,851	4,745	0	4,745
Lirik Petroleum	Lirik- EOR	1,508	0	1,508			0
Matriks	N. Sumatra-TAC			0			0
Medco (Exspan)	Kampar – PSC	8,861	1,280	10,141	9,013	985	9,998
	Langsa - TAC	2,929	0	2,929	1,949	0	1,949
	Lematang – PSC	46	0	46	33	0	33
	Rimau – PSC	34,242	0	34,242	31,846	0	31,846
	Tarakan – PSC	1,604	0	1,604			0
	Tarakan, E.Kalimntn TAC	4,846	0	4,846			0
	Tomori - JOB	424	0	424	1,410	0	1,410
Meruo Senami	Betung – JOB	61	0	61			0
Patrindo Persada Maju	Wasian, I. Jaya - TAC	19	0	19			0
Pearl Oil	Jambi – EOR	3,542	0	3,542			0
	Tungkal PSC	1,554	0	1,554	1,686	0	1,686
Perkasa Equatorial	Sembakung – TAC	4,834	0	4,834			0
Pertamina (Onshore)	Cepu (East Java)	2,967	0	2,967	94,335	0	94,335
	Cirebon (West Java)	18,662	0	18,662			0
	Jambi (Mid Sumatra)	3,046	0	3,046			0
	Kalimantan	5,913	0	5,913			0

## APPENDIX 6: PRODUCTION

Company/	Block/Area	Jan-Des 2005			Jan-Des 2006		
		Crude	Conden	Total	Crude	Conden	Total
	Prabumulih (South Sumatra)	13,993	0	13,993			0
	Rantau (North Sumatra)	3,757	1,662	5,419			0
	Sorong (Irian)	683	0	683			0
Petrochina	Bermuda – PSC	6,328	434	6,762	5,994	382	6,376
	Bangko - PSC	294	0	294	190	0	190
	Jabung, Jambi - PSC	16,209	2,047	18,256	13,127	8,488	21,615
	Salawati – JOB	3,717	0	3,717	4,997	0	4,997
	Tuban – JOB	13,383	0	13,383	10,376	0	10,376
Petronusa Bumibakti	Selat Panjang, Riau - PSC			0			0
Petroselat	Selat Panjang, Riau - PSC	55	0	55	21	0	21
Pilona Petro	Tanjung Lontar - TAC	897	0	897			0
Premier Oil	Anoa, Natuna Sea - PSC	2,158	864	3,023	1,792	789	2,581
Radian Ramok	Senabing – TAC	114	0	114			0
	Sukatani – TAC			0			0
Ranya Energy Pamanukan	S. Pamanukan TAC			0			0
Retko Prima/Western Nusantara	S. Sumatra – TAC	718	0	718			0
Sea Union Energy	Limau – JOB	5,157	0	5,157			0
Semco	Semberah - TAC	806	0	806			0
Star Energy	Kakap – PSC	6,202	1,046	7,248	6,196	787	6,983
Surya Raya Teladan	Benakat – EOR	1,422	0	1,422			0
Talisman	OK – JOB	3,451	244	3,695	3,261	274	3,535
	Tanjung – JOB	5,785	0	5,785			0
Total Fina/Elf	Mahakam, E. Kalimantan Off. – PSC	17,011	71,023	88,034	22,767	68,108	90,875
VICO	Sanga-sanga, E.Kalimtn – PSC	13,478	11,752	25,230	11,611	9,092	20,703
<b>TOTAL</b>		<b>934,802</b>	<b>127,263</b>	<b>1,062,064</b>	<b>883,152</b>	<b>122,463</b>	<b>1,005,615</b>

## APPENDIX 6: PRODUCTION

### APPENDIX 6.4: CRUDE AND CONDENSATE PRODUCTION (1,000 bpd)

Year	Crude	Condensate	Total
1995	1,434.2	170.8	1,605.0
1996	1,421.7	172.9	1,594.6
1997	1,417.9	162.8	1,580.7
1998	1,401.3	155.3	1,556.6
1999	1,351.3	149.1	1,500.3
2000	1,271.7	142.4	1,414.1
2001	1,212.3	131.9	1,344.1
2002	1,119.9	131.8	1,251.9
2003	1,013.0	133.8	1,146.8
2004	965.8	128.6	1,094.4
2005	934.8	127.3	1,062.1
2006	883.2	122.5	1,005.6

Source: Migas-Production

## APPENDIX 7: EXPORTS AND PRICES

### APPENDIX 7.1: CRUDE AND CONDENSATE EXPORTS BY VOLUME (1,000 Barrels)

	2002	2003	2004	2005	2006
<b>Total Volume</b>	<b>217,274.2</b>	<b>189,094.8</b>	<b>179,365.9</b>	<b>159,452.7</b>	<b>135,188.3</b>
Crude	185,924.9	158,045.0	149,041.9	133,997.6	115,755.4
Daily average	509.4	433	408	367	317
Condensate*	31,349.3	31,049.9	30,324.0	25,455.1	19,432.9
Daily average	85.9	85.1	83.1	69.7	53.2
<b>Total Daily Average</b>	<b>595.3</b>	<b>518.1</b>	<b>491.4</b>	<b>436.9</b>	<b>370.4</b>
<b>Annual Export Value (USD million)</b>	<b>4,928.6</b>	<b>5,401.6</b>	<b>6,458.3</b>	<b>8,136.6</b>	<b>8,211.2</b>

Source: Migas-Trade \*) Including condensate sales to local petrochemical industries.

### APPENDIX 7.2: EXPORTS BY CRUDE STREAM (1,000 Barrels)

Crude streams	2002	2003	2004	2005	2006
<b>Crude Oil</b>	<b>185,925.0</b>	<b>158,045.0</b>	<b>149,041.9</b>	<b>133,997.6</b>	<b>115,755.4</b>
Duri-Caltex	50,817.0	44,702.9	45,936.0	44,557.6	43,458.9
Minas/SLC-Caltex	48,686.1	40,682.2	32,908.4	22,855.7	21,421.0
Belanak	-	-	-	10,183.2	8,592.2
Cinta-CNOOC	13,808.3	12,806.9	12,275.6	9,803.9	5,417.3
Widuri-CNOOC	19,340.7	14,377.9	12,284.4	6,633.5	5,700.2
West Seno-Unocal		855.6	5,005.0	6,392.9	2,631.2
Mudi	3,133.0	3,249.8	1,947.4	4,291.7	1,599.4
Handil-Total	4,085.6	3,413.4	3,253.6	3,707.1	3,379.7
Belida - ConocoPhillips	9,255.7	6,818.7	7,270.6	3,603.8	2,873.3
Attaka-Union	5,892.5	4,563.9	4,132.2	3,312.3	1,469.4
Geragai – Synergy	6,013.4	5,408.5	4,194.4	3,202.7	2,288.3
Badak - Vico	3,689.8	2,507.2	1,650.8	2,519.4	1,438.4
Arjuna-BP	4,656.1	2,157.3	3,133.3	2,364.7	2,550.6
Jatibarang - Pertamina	724.8	4,742.1	5,387.4	2,099.4	1,516.0
Anoa – Pertamina	1,271.3	606.6	710.3	1,169.5	577.2
Madura	986.2	3,324.2	2,473.0	1,157.1	923.0
Kaji/Semoga-Exspan	4,628.5	567.6	0.0	1,002.7	3,193.5
Kerapu - Clyde P.	1,924.8	2,165.8	1,165.6	936.2	884.0
Walio-Trend	1,894.4	1,211.8	1,356.4	877.8	2,889.5
Sepinggan-Union	2,286.6	1,948.4	1,415.7	799.8	350.5
Oseil-Kufpec		298.5	411.6	731.9	729.7
Lalang – Kondur Pet	1,459.8	989.8	858.8	560.5	1,084.3
Sembilang – ConocoPhillips	470.3	188.2	157.5	399.4	
Sukowati-Petrochina			778.7	384.0	
Bekapai-Total	452.4	457.7	335.4	309.4	187.0
Langsa	447.7	0.0	0.0	141.0	137.0
Bunyu-Pertamina	-	-	0.0	0.0	0.0
Meslu					234.9

## APPENDIX 7: EXPORTS AND PRICES

Crude streams	2002	2003	2004	2005	2006
NWC- Cinta					1.0
Tiaka					228.0
<b>Condensate</b>	<b>31,349.3</b>	<b>31,049.9</b>	<b>30,324.1</b>	<b>25,455.1</b>	<b>19,432.9</b>
Senipah – Marathon	12,311.5	13,285.2	12,084.8	10,195.7	
Bontang Mix-Vico	9,821.6	10,286.2	9,618.4	9,446.8	
Arun – Mobil	9,216.2	7,478.5	8,620.9	5,093.8	
Geragai – Synergy				718.7	
<b>TOTAL (CRUDE + CONDENSATE)</b>	<b>217,274.30</b>	<b>189,094.82</b>	<b>179,366.0</b>	<b>159,452.7</b>	<b>135,188.3</b>

Source: Migas-Trade

### APPENDIX 7.3: CRUDE AND CONDENSATE EXPORTS BY DESTINATION (1,000 Barrels)

Country	2002	2003	2004	2005	2006
Japan	61,751.5	62,375.2	52,040.3	43,628.2	42,203.0
South Korea	43,976.7	36,888.0	42,110.4	40,108.5	23,722.9
China	22,064.0	26,483.5	25,426.1	29,309.6	14,077.9
Australia	34,468.7	23,488.7	20,430.2	19,794.4	18,650.7
Singapore	14,648.2	10,943.3	8,761.0	7,612.3	5,479.8
Thailand	10,558.3	9,643.2	9,140.6	5,721.3	8,785.7
USA	15,863.9	11,572.7	11,929.8	6,255.9	8,950.4
Taiwan	7,023.1	4,981.2	6,029.1	2,639.4	7,249.0
Malaysia	-	-	2,439.3	1,707.4	4,456.9
New Zealand	1,063.9	569.4	285.0	1,015.7	1,383.9
Philippines	410.3	1,127.7	278.0	-	-
Others	5,445.7	1,022.0	496.2	1,660.1	228.0
<b>TOTAL</b>	<b>217,274.3</b>	<b>189,094.8</b>	<b>179,366.0</b>	<b>159,452.8</b>	<b>135,188.3</b>

### APPENDIX 7.4: EXPORTS OF CRUDE OIL AND CONDENSATE PRODUCTS

Volume: 1,000 Barrels / Value: US\$ Million

Year	Crude and Condensate		Refined Products		Total Value
	Volume	Value	Volume	Value	
1996	283,741	5,711.8	77,349	1,510.5	7,373.7
1997	289,932	5,458.1	71,786	1,291.2	6,749.3
1998	280,365	3,444.9	58,897	695.4	4,140.3
1999	285,400	4,949.5	56,496	912.2	5,861.7
2000	223,500	6,282.5	67,085	1,676.0	7,958.5
2001	241,612	5,650.0	55,118	1,249.1	6,899.1
2002	217,274	4,928.6	55,490	1,059.7	5,988.3
2003	189,095	5,401.6	56,267	1,622.6	7,024.2
2004	179,366	6,458.3	46,987	1,750.3	8,208.6
2005	159,453	8,136.6	46,987	1,900.3	10,036.9
2006	135,188	8,211.2	37,193	2,688.3	10,899.6

## APPENDIX 7: EXPORTS AND PRICES

### APPENDIX 7.5: REFINED PRODUCT EXPORTS (1000 Barrels)

Products	2002	2003	2004	2005	2006
LSWR	35,938.0	34,236.5	42,287.2	31,720.9	4,403.0
Naphtha	10,993.3	11,319.8	11,763.1	6,531.1	946.6
Decant Oil	3,253.2	3,210.2	4,939.9	3,253.5	515.5
Cokes	1,654.4	2,534.5	2,589.6	1,535.8	231.6
LOMC	-	-	-	-	-
Others	3,650.8	4,966.2	2,920.6	3,945.7	31,096.4
<b>TOTAL</b>	<b>55,489.7</b>	<b>56,267.0</b>	<b>64,500.5</b>	<b>46,987.0</b>	<b>37,193.1</b>
<b>Values (\$Mln)</b>	<b>1,059.7</b>	<b>1,622.6</b>	<b>1,750.3</b>	<b>1,900.3</b>	<b>2,688.3</b>

Source: Migas-Trade

### APPENDIX 7.6: NET OIL EXPORTS (1000 Barrels)

Exports/ Imports	2002	2003	2004	2005	2006
<b>Exports</b>	<b>272,764.0</b>	<b>245,361.9</b>	<b>243,866.5</b>	<b>206,439.7</b>	<b>172,381.4</b>
Crude and Condensate	217,274.3	189,094.8	179,366.0	159,452.7	135,188.3
Refined Products	55,489.7	56,267.0	64,500.5	46,987.0	37,193.1
<b>Imports</b>	<b>231,075.3</b>	<b>241,619.1</b>	<b>302,912.9</b>	<b>283,952.6</b>	<b>133,496.9</b>
Crude and Condensate	124,147.7	135,237.9	148,489.9	118,302.9	116.2
Refined Products	106,927.6	106,381.2	154,423.0	165,649.7	133,380.7
<b>Net Exports</b>	<b>41,688.7</b>	<b>3,742.8</b>	<b>-59,046.5</b>	<b>-77,512.9</b>	<b>38,884.5</b>

Source: Migas-Trade



## APPENDIX 7: EXPORTS AND PRICES

### APPENDIX 7.7: GOVERNMENT CRUDE OIL SELLING PRICES (US\$/Barrel)

Crude	2002	2003	2004	2005	2006	Change (%)
SLC/Minas	27.1	18.0	36.3	53.1	64.2	21.0
Duri	25.7	26.5	30.4	46.0	54.9	19.4
Cinta	26.3	27.1	35.0	51.1	61.8	20.8
Widuri	26.2	27.1	35.0	51.2	61.9	21.0
Attaka	25.6	29.9	37.6	56.7	67.6	19.3
Arjuna	26.7	29.3	36.9	55.1	65.5	19.0
Belida	27.0	29.5	37.3	56.5	67.6	19.7
Senipah Condensate	27.2	29.4	40.0	54.6	65.6	20.0
Lalang	27.2	28.1	36.4	52.3	64.3	22.9
Walio Mix	26.9	27.8	36.1	53.2	64.0	20.4
Arun Condensate	27.2	29.4	37.4	55.5	64.9	16.9
Badak/Bekapai	27.6	29.9	37.6	56.7	67.6	19.3
Anoa	28.0	30.3	38.0	57.1	68.0	19.1
Kerapu	26.7	29.2	39.8	56.1	67.2	19.8
Sepinggan/Yakin	26.7	29.3	39.2	55.1	60.2	9.3
Kaji	27.5	28.4	37.0	53.5	64.6	20.9
Handil Mix	26.9	29.5	37.1	55.2	65.7	18.9
Bunyu Mix	27.1	18.0	36.3	53.1	64.2	21.0
BRC	27.0	29.2	37.2	50.4	61.3	21.6
<b>Average</b>	<b>26.9</b>	<b>27.7</b>	<b>36.9</b>	<b>53.8</b>	<b>64.3</b>	<b>19.4</b>

Source: Migas

## APPENDIX 8: IMPORTS

### APPENDIX 8.1: CRUDE OIL IMPORTS (1,000 Barrels)

Country	Crude	2002	2003	2004	2005	2006
<b>Algeria</b>	Saharan	5,492.30	8,068.37	3,588.0	993.8	2,020
<b>Angola</b>	Nemba	-	2,943.34	7,720.22	0.00	
	Palanca	-	-	995.31	0.00	
<b>Australia</b>	Barrow	-	-	-	-	5,090
	Challis	-	-	-	-	
	Cossack	-	1,273.29	1,304.84	3,746.0	
	Gipsland	-	1,354.50	658.93	0.0	
	Jabiru	-	-	-	-	
	Legedre	661.9	3,660.08	1,928.17	630.5	
	Mutineer Exeter	-	-	-	1,285.0	
	North W.S.	-	-	-	-	
	Skua	-	-	-	-	
	Varnard	-	-	-	-	
<b>Brunei</b>	Bebatik	649.8	-	-	-	23,050
	Champion			2,756.04	6,948.1	
	Light Crude	-	-	-	-	
	Seria	659.9	3,674.66	4,873.73	13,459.6	
<b>China</b>	Nanghai	6,682.10	3,644.65	-	579.6	10,040
	Punyu	-	-	-	1,014.2	
	Wenchang	-	2,250.79	4,208.93	4,033.5	
	Xijiang	1,169.70	4,699.34	7,186.69	4,502.4	
<b>Iran</b>	ILC	-	-	-	0.0	
<b>Iraq</b>	BLC	3,889.80	-	2,004.09	0.00	
<b>Libya</b>	Sarir Light	989.2	3,646.68	-	1,037.9	5,990
<b>Malaysia</b>	Bintulu	-	-	-	-	13,440
	Bunga Kekwa	-	-	346.33	588.01	
	Dulang	-	-	-	-	
	Labuhan	5,203.50	6,345.16	2,903.55	1,745.50	
	Masa	-	-	-	-	
	Miri	1,746.70	-	-	-	
	Palm	-	-	-	-	
	Tapis	-	2,635.73	7,134.06	9,393.37	
<b>Nigeria</b>	Bonny LC	7,787.00	3,840.50	5,681.7	7,699.3	
	Brass LC	6,568.60	2,775.55	1,017.6	0.0	
	Escravos	3,827.4	947.2	9,554.1	947.1	
	Odudu	9,446.7	10,486.5	0.0	0.0	
	Qua Iboe	15,307.4	11,344.1	10,444.4	7,595.7	
	Varanus	-	-	0.0	0.0	
<b>Oman</b>	Oman	2,096.60	-	-	-	
<b>Pakistan</b>	Badin	1,505.80	-	-	-	
<b>PNG</b>	Kutubu	-	3,134.77	1,860.62	601.6	3,300
<b>Rwanda</b>	Zafiro	1,939.90	1,938.93	6,821.38	0.00	
<b>Saudi Arabia</b>	ALC	34,472.50	41,339.17	37,879.6	39,371.0	41,100

## APPENDIX 8: IMPORTS

Country	Crude	2002	2003	2004	2005	2006
<b>Thailand</b>	Pattani	-	-	-	600.7	
	Tantawan/Benchamas	-	4,929.04	8,596.29	5,476.1	
<b>Vietnam</b>	Bach Ho	3,548.1	3,384.6	7,510.0	3,631.6	8,760
	Dai Hung	-	-	0.0	0.0	
	Rang Dong	-	3,954.4	962.7	2,422.1	
	Ruby	574.7	1,026.7	1,102.2	0.0	
<b>Yemen</b>	Marib LC	1,979.60	1,939.92	-	-	
<b>Others</b>	Azeri			4,986.87	-	
	BIS	-	-	-	-	
	Cham	-	-	-	-	
	Kitina	1,887.30	-	-	-	
	Nile Blend			4,463.59	-	
	PPT	-	-	-	-	
	Sudan					2,440
	Azerbaijan					1,000
<b>TOTAL</b>	<b>Volume</b>	<b>124,147.70</b>	<b>135,237.94</b>	<b>113,269.06</b>	<b>118,302.86</b>	<b>116,230</b>
	<b>Value (\$Mln)</b>	<b>3,216.93</b>	<b>4,085.45</b>	<b>5,791.97</b>	<b>6,503.76</b>	<b>7,744.80</b>

Source: Migas-Trade

### APPENDIX 8.2: IMPORTS OF CRUDE OIL AND REFINED PRODUCTS

Volume: 1,000Barrels / Value: US\$ million

Year	Crudes		Refined Products		Total Value
	Volume	Value	Volume	Value	
1995	68,326.90	1,229.10	50,765.00	978.8	2,207.90
1996	71,791.00	1,506.70	60,905.90	1,576.90	3,083.60
1997	62,882.00	1,292.00	94,994.20	2,296.80	3,588.80
1998	72,476.00	976.70	54,053.80	807.70	1,784.40
1999	84,692.00	1,501.20	79,902.00	1,656.40	3,157.60
2000	79,978.00	2,303.50	90,025.30	2,986.90	5,290.40
2001	112,878.10	2,852.30	89,622.10	2,577.40	5,429.70
2002	124,147.70	3,216.93	106,927.60	3,308.71	6,525.64
2003	135,237.94	4,085.45	106,381.19	3,395.24	7,480.69
2004	148,489.94	5,791.97	154,423.0	5,854.35	11,646.32
2005	118,302.86	6,503.76	165,649.7	10,579.20	17,082.96
2006	116,230.00	7,744.80	133,380.7	10,216.42	17,961.23

## APPENDIX 8: IMPORTS

### APPENDIX 8.3: IMPORTS OF OIL PRODUCTS (1,000 Barrels)

Oil Products	2002	2003	2004	2005	2006
Gas Oil (ADO)	60,609.6	55,133.6	77,604.8	90,817.5	68,230.6
Fuel Oil	7,750.0	6,921.8	11,927.1	8,380.0	10,575.4
Kerosene/DPK	17,100.3	14,611.7	18,285.3	16,378.4	5,541.8
HOMC 88 (Premium)	19,838.9	25,865.0	36,504.2	38,936.8	36,746.7
IDO	0.0	0.0	-	-	-
Avgas	6.5	0.0	-	-	-
Avtur	1,234.6	2,055.2	4,269.1	4,112.6	5,004.7
HSFO	-	-	-	-	-
Paraxylene (PYGas)	-	80.8	-	-	-
HOMC 92	-	-	-	6,767.25	6,931.5
Others (incl. LPG)	387.7	1,713.2	5,832.6	257.13	349.9
<b>TOTAL – Volume</b>	<b>106,927.6</b>	<b>106,381.2</b>	<b>154,423.0</b>	<b>165,649.70</b>	<b>133,380.7</b>
<b>Value (US\$Mln)</b>	<b>3,308.76</b>	<b>3,395.24</b>	<b>5,854.35</b>	<b>10,579.20</b>	<b>10,216.4</b>

Source: Migas-Trade

## APPENDIX 9: DOWNSTREAM REFINERY

### APPENDIX 9.1: CURRENT REFINERY CAPACITY (1000 BPD)

Refinery/Location	Effective Capacity 2003/2004	2004 Crude Processed	2005 Crude Processed	2006 Crude Processed	Crude Input
Pangkalan Brandan, N. Sumatra	5	2.3	2.5	1.9	Ketapa/NSC
Dumai, C. Sumatra	120	122.1	121.4	126.9	Minas, Duri
Sungai Pakning, C. Sumatra	50	48.6	49.0	38.6	Minas, Lalang, Lirik
Musi, S. Sumatra	133.7	107.4	101.4	93.8	Jene, Ramba, SPD, Talang Akar, Geragai
Cilacap, C. Java	348	332.5	315.7	322.5	Arjuna, Belida, Badak, Mudi, Attaka and imported crudes
Balikpapan, E. Kalimantan	260	264.3	259.5	254.5	Minas, Jatibarang, Widuri, Sepinggan, Cinta, Handil, Belida, Tanjung, Bunyu and imported crudes
Balongan, W. Java	125	111.9	120.2	116.6	Duri (50%), Minas(50%)
Kasim, Irian Jaya	10	8.4	7.8	1.5	Walio, Salawati
Cepu, C. Java	3.8	2.2	2.5	2.2	Cepu crude
<b>TOTAL</b>	<b>1,055.50</b>	<b>999.8</b>	<b>979.9</b>	<b>958.5</b>	<b>--</b>

Source: Migas-Refining

### APPENDIX 9.2: REFINERY INTAKE (1000 Barrels)

Sources	2002	2003	2004	2005	2006
Crude Oil	233,888.30	223,452.20	216,682.07	212,695.28	215,943.60
Condensate	230.6	105.5	2,322.64	3,497.34	2,434.10
Imported Crudes	123,851.80	135,033.30	147,028.19	127,597.07	114,758.40
Others	7,889.80	11,986.80	9,527.49	13,866.01	16,726.80
<b>TOTAL</b>	<b>365,860.50</b>	<b>370,577.80</b>	<b>375,560.39</b>	<b>357,655.70</b>	<b>349,862.90</b>

Source: Migas-Refining

## APPENDIX 9: DOWNSTREAM REFINERY

### APPENDIX 9.3: REFINERY OUTPUT (1000 Barrels)

Refinery	2002	2003	2004	2005	2006
<b>A. Total Fuel Oils (BBM)</b>	<b>278,658.4</b>	<b>278,203.0</b>	<b>283,153.4</b>	<b>268,528.8</b>	<b>254,002.8</b>
Pangkalan Brandan	558	563	457.0	504.0	382.4
Dumai	36,738.60	41,974	41,517.1	39,521.3	38,339.5
Sungai Pakning	5,195.70	5,110	5,597.3	5,464.0	4,750.7
Musi	35,621.00	31,008	30,916.7	27,632.0	24,200.1
Cilacap	95,362.70	101,517	98,611.2	90,031.1	87,994.1
Balikpapan	65,352.80	60,407	65,723.2	66,416.0	60,229.9
Balongan	38,170.80	35,402	38,109.0	36,870.6	37,490.9
Kasim	1,208.90	1,828	1,831.5	1,681.8	253.9
Cepu	449.8	395	390.4	408.1	361.3
<b>B. Total Other Products</b>	<b>87,202.1</b>	<b>92,344.8</b>	<b>92,407.0</b>	<b>70,681.3</b>	<b>95,860.1</b>
Pangkalan Brandan	422.9	398.6	381.14	341.21	313.1
Dumai	6,959.40	5,063.70	5,067.03	2,726.10	7,961.8
Sungai Pakning	12,739.80	12,030.40	12,132.89	8,794.92	9,357.1
Musi	8,612.30	10,345.30	8,565.47	7,939.23	10,020.9
Cilacap	20,722.90	26,770.20	25,544.67	18,146.18	29,718.8
Balikpapan	29,718.00	29,582.90	31,397.25	25,118.77	32,649.5
Balongan	6,561.70	6,489.90	7,556.81	6,253.61	5,081.0
Kasim	999	1,236.80	1,329.50	939.86	305.3
Cepu	456.2	427	432.22	421.46	452.6
<b>C. GRAND TOTAL (A+B)</b>	<b>365,860.5</b>	<b>370,547.8</b>	<b>375,560.4</b>	<b>339,210.1</b>	<b>349,862.9</b>
Pangkalan Brandan	980.9	961.6	838.1	845.2	695.5
Dumai	43,698.00	47,038.10	46,584.2	42,247.4	46,301.3
Sungai Pakning	17,935.50	17,140.20	17,730.2	14,258.9	14,107.8
Musi	44,233.30	41,353.40	39,482.2	35,571.2	34,221.0
Cilacap	116,085.60	128,286.70	124,155.9	108,177.3	117,712.9
Balikpapan	95,070.8	89,989.90	97,120.4	91,534.7	92,879.4
Balongan	44,732.50	41,891.40	45,665.8	43,124.2	42,571.9
Kasim	2,207.90	3,064.40	3,161.0	2,621.6	559.2
Cepu	916	822.1	822.7	829.5	813.9

Source: Migas-Refining

## APPENDIX 9: DOWNSTREAM REFINERY

### APPENDIX 9.4: REFINERY OUTPUT BY PRODUCT (1000 Barrels)

Oil Products	2002	2003	2004	2005	2006
<b>a. Fuel Oils</b>	<b>278,658.40</b>	<b>278,203.00</b>	<b>283,153.43</b>	<b>268,528.78</b>	<b>254,002.7</b>
Automotive Diesel Oil	93,985.30	94,508.70	98,644.78	94,632.87	90,415.2
Mogas*	73,287.30	72,689.70	75,276.88	73,144.60	71,407.2
Kerosene	56,300.80	58,556.10	56,819.97	53,720.59	53,745.7
Fuel Oil	37,302.20	33,877.40	30,962.12	27,752.09	24,156.7
Industrial Diesel Oil	8,430.60	7,795.10	10,202.33	8,558.76	3,606.9
Aviation Turbine	9,319.40	72.4	11,215.11	10,686.05	10,645.0
Avgas	32.8	10,703.60	32.25	33.81	26.0
Jet Petrol (JP-5)	-	-	-	-	-
<b>b. Secondary Fuel</b>	<b>44,592.60</b>	<b>50,338.70</b>	<b>47,925.55</b>	<b>50,180.94</b>	<b>56,475.2</b>
LSWR	28,362.50	32,185.00	29,188.62	28,964.64	31,069.7
Naptha	16,230.10	18,153.70	18,736.93	21,216.30	25,405.5
LOMC	-	-	-	-	-
<b>c. Non Fuel</b>	<b>18,165.50</b>	<b>20,185.70</b>	<b>21,487.08</b>	<b>20,500.40</b>	<b>23,455.5</b>
LPG	8,198.90	8,697.90	9,379.56	8,457.16	9,195.5
Asphalt	2,398.60	3,267.40	3,290.49	2,614.91	3,204.3
Green Coke	1,772.50	2,637.30	2,410.45	2,040.04	1,993.4
Lube Base Oil	2,252.50	2,867.20	2,822.53	2,403.80	2,734.0
Residual	291.5	247.3	246.66	289.81	228.9
Polytam	-	-	-	-	-
Wax	253.4	22.1	57.73	269.21	66.4
SPBX 40B	212.7	191.6	282.96	205.02	286.8
Minarex	127.6	130	150.97	242.53	288.9
Others	2,658.80	2,124.90	2,845.74	3,977.92	5,457.3
<b>d.Balance **)</b>	<b>24,443.00</b>	<b>21,820.20</b>	<b>22,994.33</b>	<b>18,445.58</b>	<b>15,995.9</b>
<b>GRAND TOTAL</b>	<b>365,860.50</b>	<b>370,547.60</b>	<b>375,560.39</b>	<b>357,655.70</b>	<b>349,929.3</b>

Source: Migas-Refining

\* Premium, Pertamina and Pertamina Plus

\*\* Intermediate, Fuel and Gas Refining, Losses

## APPENDIX 10: SUPPLY AND DEMAND OF OIL PRODUCTS

### APPENDIX 10.1: SUPPLY AND DEMAND OF OIL PRODUCTS (Million Barrels)

Supply/Demand	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>Supply</b>	<b>397.8</b>	<b>430.7</b>	<b>460.2</b>	<b>465</b>	<b>472.6</b>	<b>477</b>	<b>530.0</b>	<b>523.3</b>	<b>483.3</b>
Domestic Refineries	343.8	350.8	373.2	376	365.7	370.5	375.6	357.7	349.9
Imports	54	79.9	87	89.6	106.9	106.4	154.4	165.6	133.4
<b>Demand</b>	<b>365.3</b>	<b>382.5</b>	<b>418.4</b>	<b>413</b>	<b>412.4</b>	<b>438</b>	<b>471.1</b>	<b>454.2</b>	<b>419.5</b>
Domestic Sales	306.4	326	351.3	358	370.3	381.5	406.6	407.2	382.3
Exports	58.9	56.5	67.1	55.1	42.1	56.3	64.5	47.0	37.2

Source: Migas-Trade & Refining

### APPENDIX 10.2: SUPPLY OF REFINED PRODUCT (Million Barrels)

Products	2002	2003	2004	2005	2006
<b>Total Refinery Output</b>	<b>365.9</b>	<b>371</b>	<b>375.6</b>	<b>357.7</b>	<b>349.9</b>
Automotive Diesel Oil	94	94.5	98.6	94.6	90.4
Gasoline	73.3	72.7	71.9	73.1	71.4
Kerosene	56.3	58.6	56.8	53.7	53.7
Fuel Oil	37.3	33.9	31.0	27.8	24.2
Industrial Diesel Oil	8.4	7.8	10.2	8.6	3.6
Avtur	9.3	0	11.2	10.7	10.6
LSWR	28.4	32.2	29.2	29.0	31.1
Naptha	16.2	18.2	18.7	21.2	25.4
Others/ Refining Fuel/ Losses	52.7	52.8	47.9	39.0	39.5
<b>Total Imports</b>	<b>106.9</b>	<b>106</b>	<b>154.4</b>	<b>165.6</b>	<b>133.4</b>
Automotive Diesel Oil	60.6	55.1	77.6	90.8	68.2
Fuel Oil	7.8	6.9	11.9	8.4	10.6
Diesel Oil	-	-	-	-	-
Kerosene	17.1	14.6	18.3	16.4	5.5
Avtur	1.2	2.1	4.3	4.1	5.0
HOMC	19.8	18.8	36.5	45.7	43.7
Others	0.4	8.9	5.8	0.3	0.3
<b>Total Supply (Output + Import)</b>	<b>472.8</b>	<b>477.1</b>	<b>530.0</b>	<b>523.3</b>	<b>483.3</b>
Automotive Diesel Oil	154.6	149.6	176.2	185.5	158.6
Gasoline	73.3	72.7	71.9	73.1	71.4
Kerosene	73.4	73.2	75.1	70.1	59.3
Fuel Oil	45.1	40.8	42.9	36.1	34.7
Industrial Diesel Oil	8.4	7.8	10.2	8.6	3.6
Avtur	10.5	2.1	15.5	14.8	15.6
LSWR	28.4	32.2	29.2	29.0	31.1
Naptha	16.2	18.2	18.7	21.2	25.4
HOMC	19.8	18.8	36.5	45.7	43.7
Others	53.1	61.7	53.7	39.2	39.8

Source: Migas-Trade & Refining



## APPENDIX 10: SUPPLY AND DEMAND OF OIL PRODUCTS

### APPENDIX 10.3: CONSUMPTION OF REFINED PRODUCT (Million Liters)

Products	2002	2003	2004	2005	2006
<b>Fuel Oils</b>	<b>57,797.30</b>	<b>59,865.60</b>	<b>64,650.57</b>	<b>64,741.11</b>	<b>60,786.22</b>
Auto Diesel	24,212.90	25,635.50	26,487.75	27,470.43	25,382.00
Gasoline	13,732.40	14,112.40	17,027.44	17,828.53	17,631.55
Kerosene	11,678.40	12,262.10	11,846.12	11,385.58	10,023.21
Fuel Oil	6,260.30	6,321.30	5,754.51	4,827.88	4,820.18
Diesel Oil	1,360.30	1,402.70	1,093.41	895.21	497.82
Avtur	552.9	123.5	2,437.92	2,330.40	2,428.08
Avgas	-	8.2	3.42	3.07	3.39
<b>Others (1000 MT)</b>					
LPG	830	918	982	804	1,015
Asphalt	n/a	n/a	n/a	n/a	n/a
Lube Oil	n/a	n/a	n/a	n/a	n/a

Source: Migas-Trade & Refining

### APPENDIX 10.4: DOMESTIC FUEL CONSUMPTION BY SECTORS (Million Liters)

Year	Household	Transportation	Electricity	Industry	Total	Change (%)
1990	7,853	13,315	4,304	6,704	32,176	13.1
1991	7,987	14,396	5,260	7,183	34,826	8.2
1992	8,459	15,271	5,869	8,121	37,721	8.3
1993	8,533	16,069	6,834	8,862	40,298	6.8
1994	8,804	17,990	3,831	9,197	39,822	-1.2
1995	9,145	19,640	2,969	9,926	41,680	4.7
1996	9,682	21,824	3,331	10,292	45,129	8.3
1997	9,861	23,877	5,898	10,698	50,334	11.5
1998	10,055	23,207	4,379	10,453	48,094	-4.5
1999	11,852	23,396	3,956	11,573	50,776	5.6
2000	12,407	25,548	5,008	11,862	54,825	8
2001	12,242	26,248	5,017	12,384	55,891	1.9
2002	11,625	27,329	6,505	12,338	57,797	3.4
2003	12,318	28,596	6,696	12,254	59,865	3.5
2004	11,787	32,572	6,797	13,495	64,651	8.0
2005	11,295	32,693	9,003	11,750	64,741	0.1
2006	7,516	20,736	6,769	7,064	42,085	-35.0

Source: Migas-Trade & Refining

## APPENDIX 11: NATURAL GAS

### APPENDIX 11.1: NATURAL GAS PRODUCTION BY MAJOR PRODUCERS

(MillionSCF)

Company	2002	2003	2004	2005	2006	% Change
Total	835,031	877,523	909,932	1,067,190	1,097,341	2.83
Pertamina	258,012	263,194	383,870	379,612	368,576	-2.91
ExxonMobil	557,873	601,673	507,096	379,125	322,254	-15.00
ConocoPhillips*	233,411	297,922	319,317	344,886	345,070	0.05
Vico	438,982	392,625	329,511	251,876	208,371	-17.27
BP	272,113	245,296	182,209	123,668	136,799	10.62
Chevron (Unocal)	149,317	144,844	124,199	120,343	107,225	-10.90
Petrochina/Devon Energy	58,587	80,826	73,668	67,629	111,090	64.26
Premier/Amoseas	40,371	51,254	56,357	55,962	52,453	-6.27
Energi Mega Persada	7,690	17,786	23,617	48,279	37,259	-22.83
Exspan	41,854	47,476	37,520	41,569	0	-100.00
Star Energy	-	-	-	29,898	33,089	10.67
Chevron (Caltex)	45,656	40,640	34,757	27,704	0	-100.00
Kodeco	23,570	35,095	8,355	18,223	24,230	32.96
CNOOC/YPF/Maxus	27,258	21,526	18,813	16,940	25,716	51.81
Talisman	14,023	8,517	-	0	0	0.00
Energy Equity/Amerada	9,680	8,215	-	0	0	0.00
Sea Union/Husky	7,454	4,506	-	0	0	0.00
Hed Ind./Citra Patenindo	4,968	3,873	-	0	0	0.00
Japex	3,458	-	-	0	0	0.00
Costa International	-	-	-	0	0	0.00
Gulf Resources	-	-	-	0	0	0.00
Others	12,565	12,452	20,911	12,437	84,625	580.41
<b>TOTAL</b>	<b>3,041,873</b>	<b>3,155,243</b>	<b>3,030,132</b>	<b>2,985,341</b>	<b>2,954,098</b>	<b>478</b>

Source: Migas-Exploitation

### APPENDIX 11.2: MARKETED NATURAL GAS

(Million SCF)

	2002	2003	2004	2005	2006	% change
<b>A. Exports</b>	<b>1,741,565.0</b>	<b>1,842,894.0</b>	<b>1,607,970.5</b>	<b>1,692,581.5</b>	<b>1,593,079.0</b>	<b>5.4</b>
Exports to Singapore	82,619.0	118,112.4	145,473.9	181,246.8	n.a	0.0
LNG for Exports	1,656,472.0	1,719,127.1	1,462,496.6	1,511,334.8	1,593,079.0	5.4
LPG for Exports	2,474.0	5,654.5	0.0	0.0	0.0	0.0
<b>B. Domestic Use*</b>	<b>763,507.0</b>	<b>805,981.2</b>	<b>977,268.5</b>	<b>809,605.7</b>	<b>1,364,808.0</b>	<b>486.1</b>
Electricity	195,300.0	187,186.5	169,456.6	175,222.1	168,557.0	-3.8
Fertilizer /Petrochemical Plants	265,701.0	256,730.6	253,707.7	196,775.1	192,172.5	-2.3
City Gas	82,743.0	157,477.9	253,229.5	283,381.7	329,193.5	16.2
Oil Refinery	30,892.0	22,772.8	20,496.7	16,154.7	15,147.5	-6.2
LPG Plants	26,611.0	31,459.3	33,058.0	24,578.6	31,682.0	28.9
Cement Plants	2,751.0	2,872.3	0.0	0.0	0.0	0.0
Others	159,509.0	147,481.8	247,320.0	113,493.6	628,055.5	453.4
<b>TOTAL</b>	<b>2,505,072.0</b>	<b>3,454,856.4</b>	<b>2,585,238.9</b>	<b>2,502,187.2</b>	<b>2,957,887.0</b>	<b>491.5</b>

Source: Migas-Production

\* Exclude own use by the producers

## APPENDIX 11: NATURAL GAS

### APPENDIX 11.3: GAS PIPELINE DEVELOPMENT PROJECT

Trans. Projects	Sub Transmission Projects	Size; length	Flowrate MMSCFD	Funding Sources	Status/Schedule
SSWJ - Phase 1 (\$570.5 mln)	Pagardewa - Labuhan Maringgai	32" ; 272 km	250	JBIC, PGN	Pipeline construction/ completion midyear 2008
	Labuhan Maringgai - Bojonegara	32" ; 105 km	250	JBIC, PGN	Completed and operated on March 2007
	Bojonegara - Serpong	24" ; 70km	250	PGN	Tender process for EPC contractor/completion end of 2008
	Pagardewa Compressor	18.000 HP	250	PGN	under construction/ completion March 2008
	Cilegon Distribution Expansion	8" & 16" ; 51 km	250	JBIC	Construction/completion end of 2007
SSWJ Phase 2 (\$786.4 mln)	Grissik - Pagar Dewa	36" ; 196 km	400	Eurobond, PGN	Pipeline construction/ completion end of 2007
	Pagardewa - Labuhan Maringgai (Loop)	32" ; 272 km	400	Eurobond, PGN	Completed and operated on March 2007
	Labuhan Maringgai - Muara Bekasi	32" ; 164 km	400	Eurobond, PGN	Completed and operated on August 2007
	Muara Bekasi - Rawamaju	32" ; 32 km	400	Eurobond, PGN	Completed and operated on August 2007
Banten & West Java (\$162 mln)	Banten & Greater Jakarta Distribution (21 Package)	4"-16" ; 252 km	1000	WB	Construction & tender process/total completion end of 2008
	Banten & Greater Jakarta Distribution (16 Package)	4"-16" ; 233 km	1000	PGN	pipeline construction/ completion end of 2007
Duri - Dumai – Medan (\$537 mln)	Duri - Belawan	28" ; 509 km	350	Loan, PGN	Study and permit /completion in 2011
	BY - Simpang Dumai	20" ; 155 km	350	Loan, PGN	Study and Permit/completion in 2011
East Kalimantan - Central Java (\$1220 mln)	Kuala Badak - Balikpapan Transmission	42" ; 100 km	1100	ADB, EIB, WB, Grants, PGN	Feasibility study in 2004 ; Non PGN Project
	Balikpapan - Banjarmasin Transmission	42" ; 519 km	1100	ADB, EIB, WB, Grants, PGN	Feasibility study in 2004 ; Non PGN Project
	Banjarmasin - Semarang Transmission	42" ; 600 km	1100	ADB, EIB, WB, Grants, PGN	Feasibility study on 2004 ; Non PGN Project
	Balikpapan, Samarinda & Banjarmasin Distribution	4'-6' ; 152 km	n.a	ADB, EIB, WB, Grants, PGN	Initial Survey ; PT PGN 2002

## APPENDIX 11: NATURAL GAS

Trans. Projects	Sub Transmission Projects	Size; length	Flowrate MMSCFD	Funding Sources	Status/Schedule
East Java - West Java (\$540 mln)	Gresik - Semarang Transmission	28" ; 250 km	700	ADB, Grants, PGN	Study ; Non PGN Project
	Semarang - Cirebon Transmission	42" ; 230 km	700	ADB, Grants, PGN	Study ; Non PGN Project
	Cirebon - Muara Bekasi Transmission	42" ; 220 km	700	ADB, Grants, PGN	Study; Non PGN Project
Sengkang - Makassar (\$110 mln)	Kampung Baru - Pare Pare - Makassar	10"-18" ; 210 km	63 - 88	Loan, PGN	Feasibility study

Source: PGN

## APPENDIX 12: LNG AND LPG

### APPENDIX 12.1: LNG PRODUCTION AND EXPORT (1,000 MT)

	2002	2003	2004	2005	2006
<b>Production</b>	<b>26,253.65</b>	<b>26,771.62</b>	<b>25,237.87</b>	<b>23,676.76</b>	<b>22,400.12</b>
PT. Arun	6,375.41	6,633.98	5,660.33	4,203.38	3,387.10
PT. Badak	19,878.24	20,137.64	19,577.54	19,473.39	19,013.02
<b>Exports</b>	<b>26,214.50</b>	<b>26,433.34</b>	<b>-</b>	<b>23,478.5</b>	<b>46,138.3</b>
PT. Arun	6,249.70	6,429.20	-	4,168.17	7,273.87
PT. Badak	19,964.80	20,004.15	-	19,310.31	38,864.46

Source: Migas-Production & Trade

### APPENDIX 12.2: LNG EXPORTS

Year	Total (Mln MMBTU)	Total (1,000 MT)	Total (USD million)
1995	1,287	24,899	3,856
1996	1,370	26,505	4,730
1997	1,388	26,896	4,735
1998	1,396	26,974	3,390
1999	1,502	28,956	4,489
2000	1,400	26,990	6,802
2001	1,239	23,883	5,375
2002	1,360	26,215	5,595
2003	1,370	26,433	6,586
2004	1,322	25,495	7,722
2005	1,218	23,478	9,132
2006	1,176	46,138	10,386

Source: Migas - Trade

### APPENDIX 12.3: LNG EXPORTS BY DESTINATION (1,000 MBTU)

Destination	2002	2003	2004	2005	2006
Japan	714,426	923,707	841,969	738,645	739,473
Korea	200,884	263,015	275,594	292,921	262,856
Taiwan	120,232	114,132	204,852	186,264	173,959
<b>TOTAL</b>	<b>1,035,543</b>	<b>1,300,854</b>	<b>1,322,415</b>	<b>1,217,829</b>	<b>1,176,288</b>

Source: Migas-Trade

## APPENDIX 12: LNG AND LPG

### APPENDIX 12.4: LPG PRODUCTION (MT)

	2002	2003	2004	2005	2006
<b>Total Refineries (Oil+Gas)</b>	<b>2,099,756</b>	<b>1,922,213</b>	<b>2,016,001</b>	<b>1,818,900</b>	<b>1,279,449</b>
<b>Oil Refinery</b>	<b>814,177</b>	<b>778,939</b>	<b>896,395</b>	<b>832,717</b>	<b>897,304</b>
Dumai	43,416	51,500	63,250	71,370	75,240
Musi	121,070	102,965	134,276	139,680	146,068
Cilacap	144,768	162,721	148,113	118,389	149,313
Balikpapan	104,437	128,416	120,315	99,139	94,464
Balongan	400,486	333,337	430,441	404,139	432,219
<b>Gas Refinery</b>	<b>1,215,650</b>	<b>1,143,274</b>	<b>1,119,606</b>	<b>986,183</b>	<b>382,145</b>
Arun/ExxonMobil					
Badak/Vico	823,434	843,392	854,136	770,197	-
Arjuna/Bp	161,172	25,797	147,224	-	-
Santan/Union	172,525	155,375	-	127,358	69,146
Mundu/Pertamina	9,533	12,548	9,457	5,959	1,860
Arar	678	-	1,474	-	2,199.68
North Sumatra/sumbagut	48,308	38,900	38,337	26,428	5,602
Jabung	-	67,262	68,978	56,240	242,196
Maruta					8,097
Medco Kaji					36,510
Titis Sampurna					15,053
Sumber D Kelola					1,481

### APPENDIX 12.5: LPG PRODUCTION, DOMESTIC SALES AND EXPORTS (MT)

Year	Production (MT)	Domestic Sales (MT)	Export Volume (MT)	Export Value (US\$ million)	Price (\$/MT)
1990	2,745,884	317,419	2,602,057	378	145.4
1991	2,756,504	361,593	2,528,844	345	136.5
1992	2,785,009	413,852	2,470,334	356	144.0
1993	2,872,072	506,055	2,548,056	329	129.0
1994	2,894,219	548,250	2,566,495	343	133.6
1995	2,941,345	629,354	2,493,301	468	187.5
1996	3,227,664	810,436	2,709,320	547	202.0
1997	2,786,651	828,930	2,132,917	516	242.1
1998	2,343,944	799,900	1,761,305	257	146.0
1999	2,263,518	906,326	1,745,383	339	194.3
2000	2,087,669	982,700	1,306,318	394	301.4
2001	2,187,677	1,022,000	1,484,484	389	261.8
2002	2,099,756	830,044	1,269,712	312	245.4
2003	2,023,981	917,557	1,106,424	330	297.8
2004	2,016,001	981,731	1,034,270	334	345.0
2005	1,818,900	803,534	1,015,366	475	467.9
2006	1,279,449	1,024,705	254,744	126	492.7

Source: Migas-Trade

## APPENDIX 12: LNG AND LPG

### APPENDIX 12.6: LPG EXPORTS BY DESTINATION

Volume in 1,000 MT / Value in US\$ 1,000

	2002	2003	2004	2005	2006
<b>Volumes</b>	<b>1,269.7</b>	<b>1,106.6</b>	<b>1,034.3</b>	<b>1,015.4</b>	<b>254.7</b>
Japan	879.4	882.3	836.2	865.6	39.9
HongKong	-	-	-	0.0	0.0
Taiwan	10.6	-	-	8.8	0.0
Australia	8.5	7.0	9.2	4.7	6.8
Singapore	1.6	21.7	-	0.0	0.0
Philippines	57.3	34.9	35.2	42.7	6.0
China	243.3	82.0	45.8	85.6	106.8
Others	69.0	78.7	108.0	8.0	95.3
<b>Values</b>	<b>411,571.0</b>	<b>137,743.8</b>	<b>333,676.9</b>	<b>475,106.1</b>	<b>125,518.6</b>
Japan	n/a	n/a	n/a	n/a	n/a
HongKong	n/a	n/a	n/a	n/a	n/a
Taiwan	n/a	n/a	n/a	n/a	n/a
Australia	n/a	n/a	n/a	n/a	n/a
Singapore	n/a	n/a	n/a	n/a	n/a
Philippines	n/a	n/a	n/a	n/a	n/a
Others	n/a	n/a	n/a	n/a	n/a

## APPENDIX 13: PRIMARY ENERGY

**APPENDIX 13.1: PRIMARY ENERGY CONSUMPTION**  
(Million Barrels of Oil Equivalent)

Year	Oil	%	Natural Gas	%	Coal	%	Hydro	%	Geo-thermal	%	Total
1992	259.9	64.5	82	20.4	31.3	7.8	27.5	6.8	2	0.5	402.7
1993	278.0	65.2	88.8	20.8	31.1	7.3	26.3	6.2	2.2	0.5	426.4
1994	275.9	60.3	117.3	25.6	36.7	8.0	25.7	5.6	2.1	0.5	457.7
1995	290.0	58.4	134.3	27.1	41.6	8.4	26.3	5.3	4.2	0.8	496.4
1996	304.0	57.7	145.4	27.6	46.2	8.8	27.1	5.1	4.5	0.9	527.2
1997	340.8	59.1	150.8	26.2	58.6	10.2	20.7	3.6	5.4	0.9	576.3
1998	333.5	58.7	144.1	25.4	55.8	9.8	26.9	4.7	7.4	1.3	567.7
1999	354.0	57.2	168.5	27.2	62.5	10.1	26.0	4.2	7.5	1.2	618.5
2000	378.5	58.7	164.7	25.6	67.1	10.4	25.1	3.9	9.2	1.4	644.6
2001	386.2	54.2	164.4	23.1	120.9	17.0	29.4	4.1	11.8	1.7	712.6
2002	392.1	52.2	169.9	22.6	147.8	19.7	29.8	4.0	11.8	1.6	751.4
2003	397.6	52.0	161.6	21.2	150.8	19.7	30.7	4.0	23.4	3.1	764.1
2004	401.0	49.1	212.0	26.0	162.7	19.9	17.6	2.2	23.4	2.9	816.6
2005	405.3	46.2	260.2	29.6	172.3	19.6	15.4	1.8	25.0	2.8	878.2
2006		0.0		0.0		0.0		0.0		0.0	0.0

Source: Migas and BP Statistical Review of World Energy



## APPENDIX 14: PETROCHEMICALS

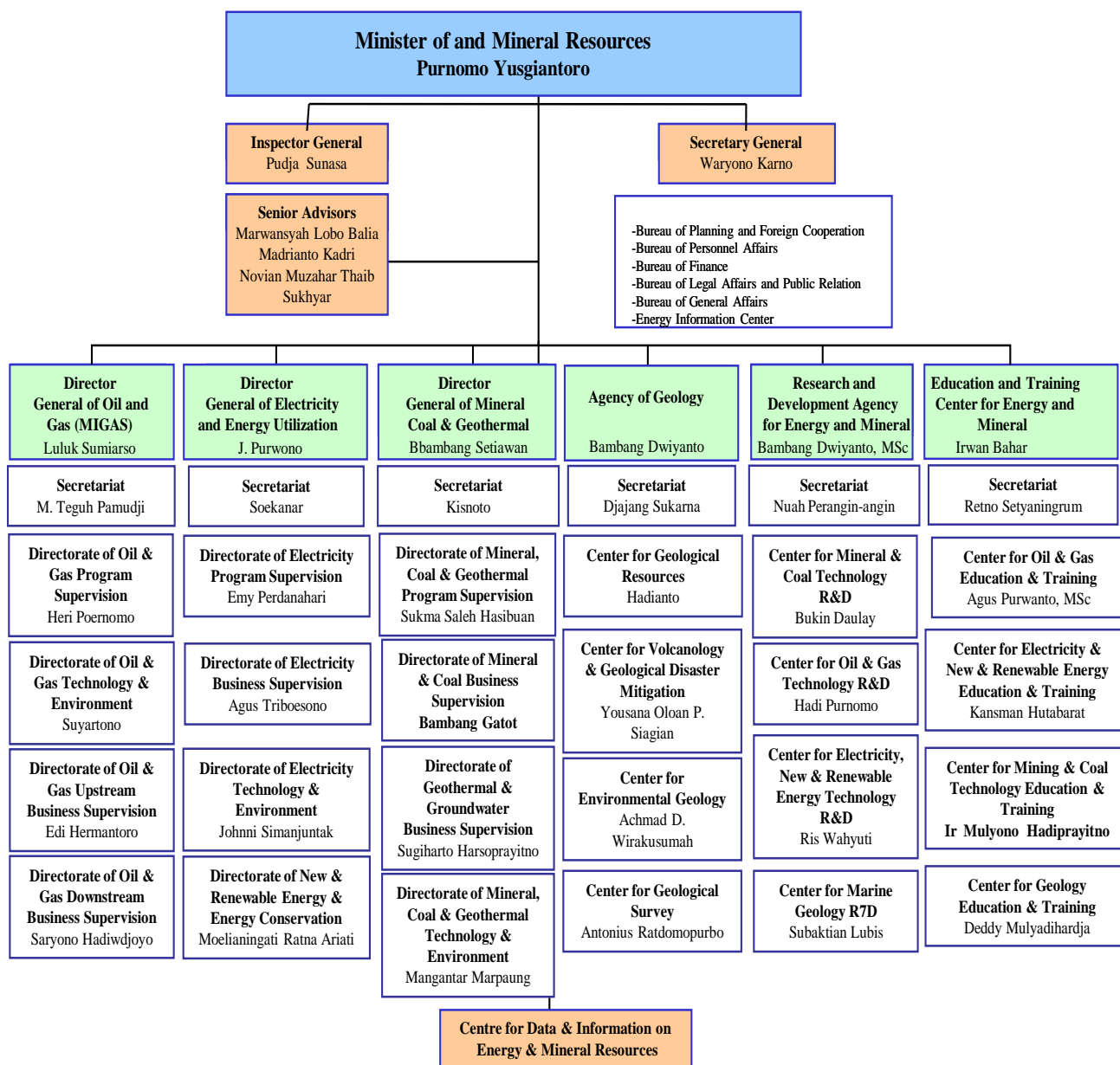
### APPENDIX 14.1: PETROCHEMICAL INDUSTRY IN INDONESIA (1000 MT)

Products	Annual Capacity	Production			Utilization 2006
		2004	2005	2006	
Upstream chemical					
Ethylene	550	485	488	490	89%
EDC	775	849	894	921	119%
VCM	500	444	478	493	99%
Polyethylene	750	445	461	470	63%
Poly Vinyl Chloride	589	362	377	400	68%
Ethylene Glycol	220	195	202	206	94%
Propylene and derivatives	513	352	365	598	117%
Polypropylene	600	508	526	536	89%
Polyol	35	32	32	35	100%
Aromatics					
Benzene and derivatives					
Benzene	123	114	118	180	146%
AB Styrene	40	16	17	18	45%
Styrene Monomer	300	283	290	303	101%
Polystyrene	130	70	73	83	64%
Styrene Acrlonitrile (SAN)	20	19	19	20	100%
NTC	46	38	40	41	89%
Alkyl Benzene (AB)	210	198	214	224	107%
AB Sulfonat	191	183	184	185	97%
Paraxylene and derivatives					
Paraxylene and derivatives	270	256	266	277	103%
Pure Terephthalic Acid	1910	1667	1760	1845	97%
Malaic Anhydride	15	10	11	11	73%
Pthalic Anhydride	140	71	74	81	58%
Polyethylene Terephtalane	363	273	289	305	84%
Alkyd Resin	68	57	59	61	90%
Synthetic Resin Dispersin	174	96	100	105	60%
DOP	100	86	89	90	90%

Source: Minister of Industry

# APPENDIX 15: GOVERNMENT ORGANIZATION

## APPENDIX 15.1: ORGANIZATION CHART OF THE MINISTRY OF ENERGY AND MINERAL RESOURCES



## APPENDIX 15: GOVERNMENT ORGANIZATION

### APPENDIX 15.2: SELECTED KEY OFFICIALS OF THE MINISTRY OF ENERGY AND MINERAL RESOURCES

Head Office: Jalan Merdeka Selatan 18, Jakarta

Tel: (021) 380-4242 Fax: (021) 381-0839

[www.esdm.go.id](http://www.esdm.go.id)

Minister: Dr. Ir. Purnomo Yusgiantoro, MSc, MA

Tel: (021) 381-3232 Fax: (021) 384-6596

[www.mesdm.net](http://www.mesdm.net)

Waryono Karno, SE, MBA

Secretary General

Tel: (021) 384-5054, Fax: (021) 384-1896

[www.setjen.esdm.go.id](http://www.setjen.esdm.go.id)

Pudja Sunasa

Inspector General

Tel: (021) 520-2441, Fax: (021) 526-4247

[www.itjen.esdm.go.id](http://www.itjen.esdm.go.id)

F.X Sutijastoto

Head of Planning & Foreign Cooperation  
Bureau

Tel: (021) 345-0814, Fax: (021) 381-0907

Sutisna Prawira SH. .

Head of Legal and Public Relation Bureau

Tel: (021) 381-0848 Fax: (021) 348-1308

Ir. Novian Muzahar Thaib, M.M

Secretary general of National Energy Council

Tel: (021) 526-9046 Fax: (021) 526-8904

Hedi Hidayat

Head of Information Center for Energy

Tel: (021) 350 9964, Fax: (021) 386 7590

### Directorate General of Oil & Gas (MIGAS)

Plaza Centris, Jl. HR. Rasuna Said Kav B/5, Kuningan, Jakarta

Tel: (021) 526-8910 Fax: (021) 526-8904

[www.migas.go.id](http://www.migas.go.id)

**Dr. Evita Legowo**

Director General, Oil and Gas

Tel: (021) 526-9011, Fax: (021) 526-9012

Teguh Pramudji, SH

Secretary to Directorate General of Oil and Gas

Tel: (021) 526-9027, Fax: (021) 526-8979

Edi Hermantoro

Director, Upstream Development

Tel: (021) 526-9045, Fax: (021) 526-8904

Ir. Saryono Hadiwidjoyo, SE

Director, Downstream Development

Tel: (021) 526-8982, Fax: (021) 526-8981

Ir. Suyartono, Msc

Director, Oil and Gas Technical and  
Environment

Tel: (021) 526-8983, Fax: (021) 526-9037

Ir. Heri Poernomo, MEMD

Director, Oil and Gas Program Development

Tel: (021) 520-5468, Fax: (021) 526-9035

## APPENDIX 15: GOVERNMENT ORGANIZATION

### **Directorate General of Electricity and Energy Utilization**

Jl. HR. Rasuna Said, Kuningan Kav 7 Jakarta

Tel: (021) 522-5180 Fax: (021)

[www.djlpe.esdm.go.id](http://www.djlpe.esdm.go.id)

**Ir. J. Purwono**

**Director General**

Tel: (021) 525-6072, Fax: (021) 522-5186

Ir. Agus Triboesono, M.Eng

Director of Electricity Industry Promotion

Tel: (021) 525-0352, Fax: (021) 520-3850

Soekandar, SH, M.M

Secretary to Directorate General of Electricity  
and Energy Utilization

Tel: (021) 525-6062, Fax: (021) 525-6066

Ir. Johnni RH Simanjuntak

Director of Electricity Engineering

Tel: (021) 5245-6034, Fax: (021) 525-6034

Ir. Emy Perdanahari, MSc.

Director of Electricity Program Supervision

Tel: (021) 527-9347, Fax: (021) 525-6064

Ir. Moeljaningati Ratna Ariati, MSc

Director of New and Renewable Energy and  
Energy Conservation

Tel: (021) 525-6084, Fax: (021) 525-6066

### **Directorate General of Geology and Mineral Resources**

Jl. Dr. Supomo 10, Jakarta 12870

Tel: (021) 828-0773 Fax: (021) 829-7642

[www.dpmb.esdm.go.id](http://www.dpmb.esdm.go.id)

Ir. Bambang Setiawan

Director General, Geology and Natural Resources

Tel: (021) 828-0773, Fax: (021) 829-7642

### **Research and Development Agency for Energy and Mineral (Balitbang)**

Jl. Ciledug Raya, Kav.109, Kebayoran Lama, Jakarta Selatan 12230, Indonesia

Tel: (021) 724-3575 Fax: (021) 725-4768

[www.lemigas.esdm.go.id](http://www.lemigas.esdm.go.id)

Bambang Dwiyanto, MSc

Head of Research and Dev Agency

Tel: (021) 724-3575 Fax: (021) 725-4768

### **Education and Training Agency for Energy and Mineral (Badiklat)**

Jl. Gatot Subroto Kav.49, Jakarta Selatan

Tel : (021)525-0447 Fax: (021)525-1380

[www.diklat.esdm.go.id](http://www.diklat.esdm.go.id)

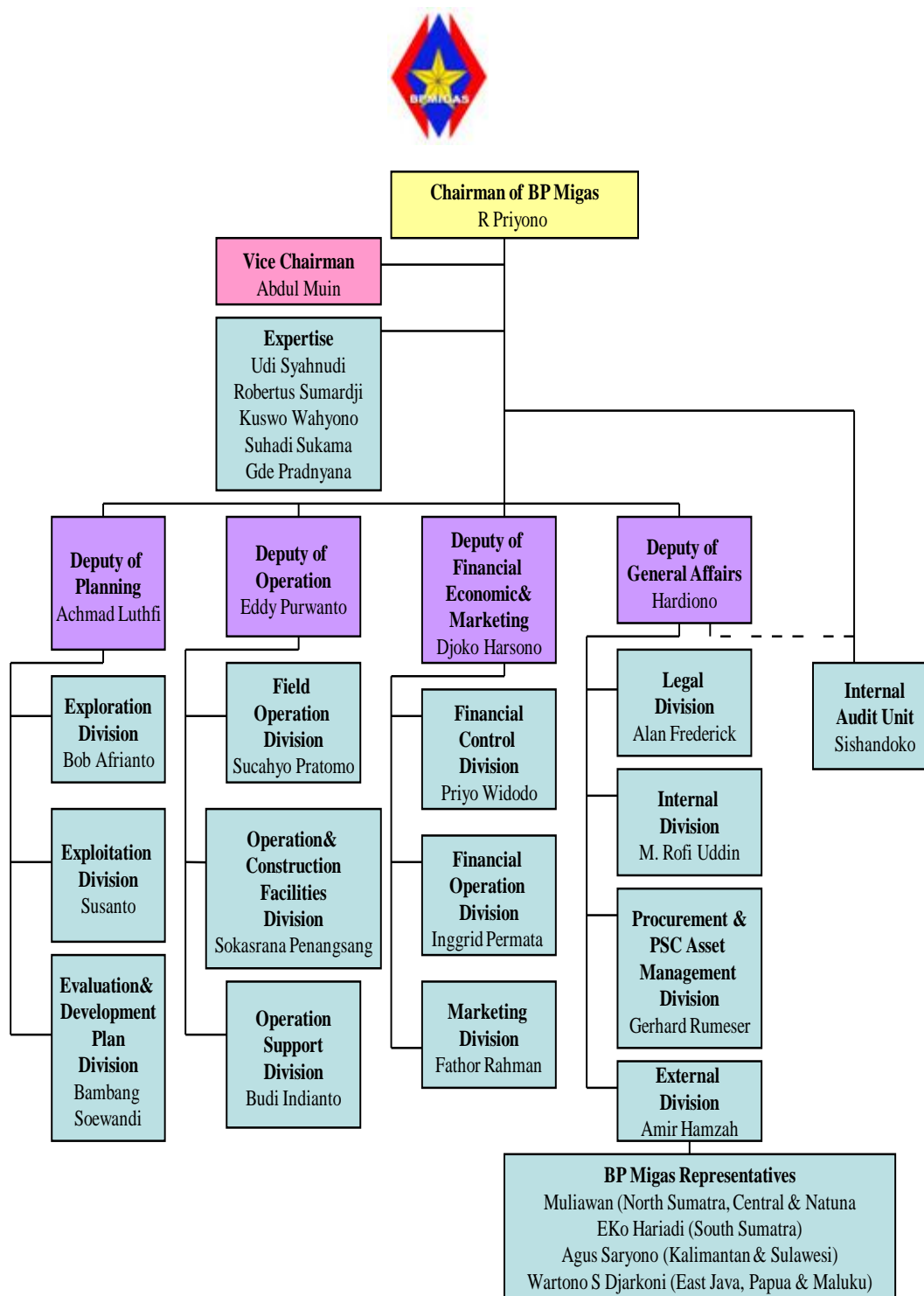
Dr. Irwan Bahar

Head of Education and Training Center

Tel : (021)525-0447 Fax: (021)525-1380

## APPENDIX 15: GOVERNMENT ORGANIZATION

### APPENDIX 15.3: ORGANIZATION CHART OF BP MIGAS



## APPENDIX 15: GOVERNMENT ORGANIZATION

### APPENDIX 15.4: SELECTED KEY OFFICIALS OF OIL AND GAS EXECUTIVE BOARD (BP MIGAS)

Address: Gedung Patra Jasa Lantai 1,2,13,14,16,21,22

Jl Gatot Subroto Kav 32-34, Jakarta

Tel: (021) 529-00245 – 48

[www.bpmigas.com](http://www.bpmigas.com)

#### **R. Priyono**

##### **Chairman**

Ext. 6500, Fax: 5290-0117

Abdul Muin

Vice Chairman

Ext. 4742, Fax: 5290-0119

Achmad Luthfi

Deputy for Planing

Ext. 4744 Fax: 5290-0009

Ir. Eddy Purwanto, MBA

Deputy for Operation

Ext. 5108 Fax: 5296-1339

Djoko Harsono

Deputy for Economy, Finance and Marketing

Ext. 4743 Fax: 5290-1163

Hardiono

Deputy for General affairs

Ext. 6646 Fax: 5290-1166

Bob Afrianto

Head of Exploration Division

Ext. 6577 Fax: 5290-0889

Susanto

Head of Exploitation Division

Ext. 4752 Fax: 5290-1281

Bambang Soewandi

Head of Development and Planning

Ext. 4751 Fax: 5290-1277

Sucahyo Pratomo

Head of Field Operation Division

Ext. 4747 Fax: 5290-0697

Sokasrana Penangsang

Head of Facility and Construction

Ext. 4748 Fax: 5290-1270

Budi Indianto

Head of Operational Supports

Ext. 4754 Fax: 5290-1168

Priyo Widodo

Head of Financial Control Division

Ext. 6553 Fax: 5296-1340

Ingrid Permata

Head of Finance Operation Division

Ext. 4750 Fax: 5290-1275

Fathor Rahman

Head of Marketing Division

Ext. 4753 Fax: 5296-1406

Allan Frederick SH

Head of Legal Affairs Division

Ext. 4756 Fax: 5290-0001

M. Rofi Uddin

Head of Internal Affairs Division

Ext. 4749 Fax: 5290-1276

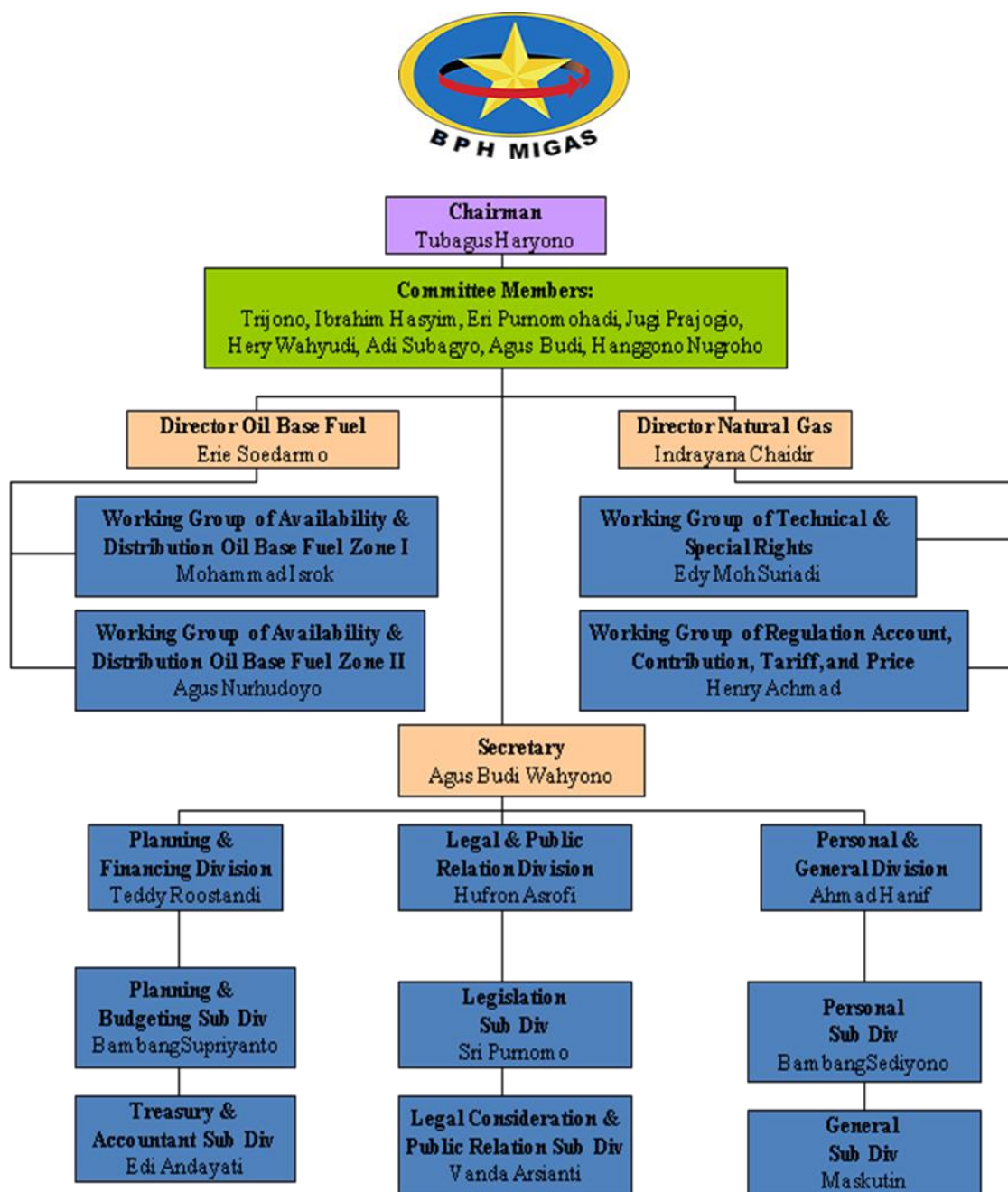
Amir Hamzah

Head of External Affairs Division

Ext. 4755 Fax: 5296-1369

## APPENDIX 15: GOVERNMENT ORGANIZATION

### APPENDIX 15.5: ORGANIZATION CHART OF DOWNSTREAM REGULATORY BODY (BPH MIGAS)



## APPENDIX 15: GOVERNMENT ORGANIZATION

### APPENDIX 15.6: REGULATORY BODY FOR OIL AND GAS DOWNSTREAM ACTIVITY (BPH MIGAS)

Office: Jl Gatot Subroto Kav 49, 4th Floor, Jakarta 12950

Tel: (021) 525-5500, 5212400 Fax: (021) 522-3210

[www.bphmigas.go.id](http://www.bphmigas.go.id)

**Tubagus Haryono**  
**Head of BPH MIGAS/ Committee Chairman**  
Ext. 403

Adi Subagio Subono  
Committee Member  
Ext. 410

Trijono  
Committee Member  
Ext. 413

Agus Budi Hartono  
Committee Member  
Ext. 200

Ibrahim Hasyim  
Committee Member  
Ext. 411

Hanggono T Nugroho  
Committee Member  
Ext. 407

Eri Purnomohadi  
Committee Member  
Ext 406

Erie Soedarmo  
Director of Oil Base Fuel  
Ext. 102

Jugi Prajogio  
Committee Member  
Ext. 409

Indrayana Chaidir  
Director Natural Gas  
Ext. 302

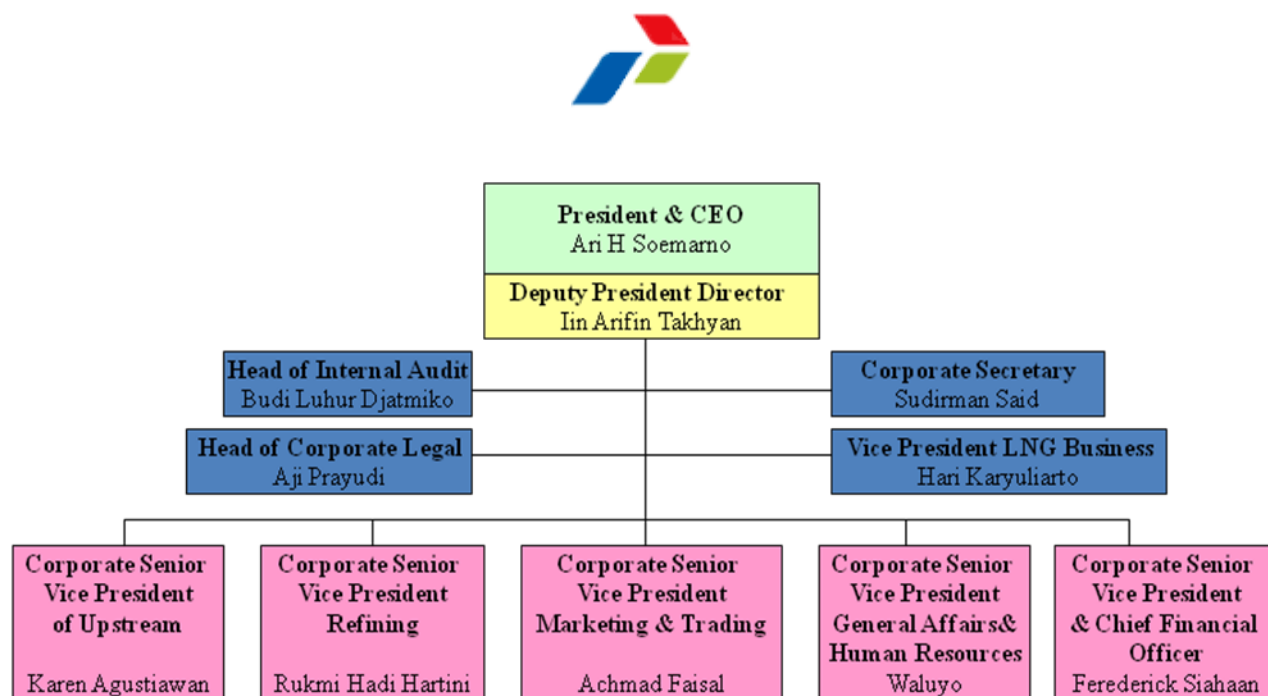
Heru Wahyudi  
Committee Member  
Ext. 412

Agus Budi Wahyono  
Secretary to the Regulatory Agency  
Ext. 204



## APPENDIX 15: GOVERNMENT ORGANIZATION

### APPENDIX 15.7: PERTAMINA ORGANIZATION CHART



### APPENDIX 15.8: PERTAMINA BOARD OF COMMISSIONER

President Commissioner

Endriartono Sutarto

Tel: (021) 381-5056, Fax: (021) 384-6940

Commissioners :

Maisar Rahman

Tel: (021) 381-5035, Fax: (021) 381-6970

Muhammad Abduh

Tel: (021) 381-5040

Dr. Umar Said

Tel: (021) 548-3764, Fax: (021) 535-7446

Achmad Rochyadi

Tel: (021) 381-5228

## APPENDIX 15: GOVERNMENT ORGANIZATION

### APPENDIX 15.9: SELECTED KEY PERTAMINA OFFICIALS

#### Indonesia State Oil and Gas Company (PERTAMINA)

Head Office: Jalan Merdeka Timur 1A, Jakarta

Tel: (021) 381-5111, 381-6111, Fax: (021) 384-3882, 384-68651

[www.pertamina.com](http://www.pertamina.com)

#### President Director: Arie H Soemarno

Tel: (021) 381-5000, Fax: (021) 384-6859

[a\\_soemarno@pertamina.com](mailto:a_soemarno@pertamina.com)

Iin Arifin Takhyan

Deputy President Director/VP

Tel: (021) 3815410, Fax: (021) 381-1685

Karen Agustiawan

Corporate Senior

Vice President Upstream

Tel: (021) 350-8048, Fax: (021) 350-8020

Rukmi Hadi Hartini

Corporate Senior

Vice President Refining

Tel: (021) 381-5100, Fax: (021) 380-1918

Achmad Faisal

Corporate Senior

Vice President Marketing&Trading

Tel: (021) 381-5500, Fax: (021) 384-9875

Waluyo

Corporate Senior

Vice President General Affairs&Human

Resources

Tel: (021) 381-5700, 381-6000, Fax: 384-6861

Federick ST Siahaan

Corporate Senior

Vice President &

Chief Financial Officer

Tel: (021) 381-5005, Fax: (021) 345-2958

Luhur Budi Djatmiko

Head of Internal Auditor

Tel: (021) 390-3121

Sudirman Said

Corporate Secretary

Tel: (021) 381-5611

Aji Prayudi

Head of Corporate Legal

Tel: (021) 381-6394

Hari Karyulianto

Vice President LNG Business

Tel: (021) 381-5111

## APPENDIX 15: GOVERNMENT ORGANIZATION

### APPENDIX 15.10: PERTAMINA OVERSEAS REPRESENTATIVES

Tokyo: Mr. Adi Wibowo  
Imperial Tower 12F  
1-1-1 Uchisaiwai-cho, Chiyoda-ku  
Tokyo 100-0011 Japan  
Tel: +81-3-3502 8221/5, Fax: +81-3-3502-5637

### APPENDIX 15.11: PERTAMINA AFFILIATE MARKETING OFFICES AND SELECTED JOINT VENTURE COMPANIES

#### **Arun NGL Co**

Aknasio Sabri, President Director  
Wisma Nusantara 11st Fl  
Jl. MH Thamrin No. 59, Jakarta  
Tel. : (021) 314-3107 Fax : (021) 330-351

#### **Badak NGL Co**

Yoga Pratomo, President Director  
Wisma Nusantara 9th Fl  
Jl. MH Thamrin No. 59, Jakarta  
Tel. : (021) 3193-6317, Fax : (021) 314-2974  
[www.badaklng.co.id](http://www.badaklng.co.id)

#### **KIPCO (Korea-Indonesia Petroleum Company Ltd.)**

4th Floor, Building 221-5 Nonhyun-  
Dong Kangnam-Ku, Seoul, Korea 135-010  
Tel: (822) 518-1390-2 Fax: (822)518-3204

#### **Nusantara Gas Services Co.**

Yenny Handayani, President Director  
Nakanoshima Center Bldg. 23F, 6-2-27  
Nakanoshima, Kita-ku, Osaka City, Japan

#### **Pacific Petroleum and Trading Co. Ltd.**

Roland Gultom, President Director  
East Tower 11F, Akasaka Twin Tower, 17-  
22 Akasaka 2-Chome, Minato-ku, Tokyo,  
Japan  
Tel: +81-3-5562-6500  
Fax: +81-3-5562-6504

Jakarta Representative Office  
Bambang Suwondo, Chief Rep  
Skyline Building, 14th Floor  
Jl. M. H. Thamrin 9, Jakarta  
Tel: 314-3415, 314-1708, Fax: 314-0732

#### **Pertamina Energy Trading Ltd. (PETRAL)**

J. Soemarno, President Director  
Suite 608 Dah Sing Financial Center  
108 Gloucester Road  
Wanchai, Hong Kong  
Tel: +852-2802-2108, 2824-9802

Jakarta Liaison Office  
Sudirman Tower, 7th Floor  
Jl. Jend. Sudirman Kav 60, Jakarta  
Tel: 521-2850, Fax: 521-2858

## APPENDIX 15: GOVERNMENT ORGANIZATION

### APPENDIX 15.12: SELECTED KEY PGN OFFICIALS

Indonesia State Gas Company (PGN):  
Head Office: Jl. K. H. Zainul Arifin No. 20, Jakarta 11140  
Tel : 633-4838, Fax: 633-3080

#### **President Director**

**Hendi Prio Santoso**

Tel: 633-9524 Fax: 633-7784

Ir. Michael Baskoro Palwo Nugroho  
Director of Development  
Tel: 633-9525 Fax: 633-1304

Ir. Hari Pratoyo, MM  
GM SBU UTSJ  
Tel. 633-4838 Ext: 6800

Hendi Prio Santoso  
Director of Finance  
Tel: 633-9526 Fax: 633-1109

Drs. Rosichin, MM  
Head, Risk Management  
Tel. 633-4838

Ir. Bambang Banyudoyo, MSc  
Director of Operation  
Tel. 633-1203 Fax: 634-8616

Drs. Kris Handono  
Head, Gas Supply  
Tel. 633-4868 Ext 3120

Drs. Djoko Pramono, MBA  
Director of General Affairs  
Tel. 633-4860 Fax: 633-1303

Ir. Melanton Ganap, MSc  
Head, Marketing Division  
Tel. 633-4838 Ext 3100

Ir Uji Subroto Santoso, MM  
Head, Dev Division  
Tel: 633-4838 Ext: 2200

Ir. M Arsyad Rangkuti, MS  
Head, Operation  
Tel: 633-4838 Ext 3200

Ir. Iwan Heryawan, MSc  
Head, Planning & Dev Control  
Tel. 633-4838 Ext 2100

## APPENDIX 16: OIL CONTRACTS

### APPENDIX 16.1: ACTIVE OIL CONTRACTS

No	Block Name	Operator	Other Interest Holder		Location	Contract	Area	Contract Type
			Company	%		Sign	Km2	
1	Air Komerling	PT Cahaya Baturaja	PT Cahaya Baturaja	100	Ons, South Sumatra	Dec-04	4109	PSC Exp
2	Ambalat	Eni Ambalat	Eni Ambalat Anadarko Ambalat Limited	66 34	Off, East Kalimantan	Sep-99	1990	PSC Exp
3	Ambirip VI	ConoccoPhillips	ConoccoPhillips	100	Off, Papua	Sep-06	9649	PSC Exp
4	Anambas	Sanyen Oil and Gas	Sanyen Oil and Gas	100	Off, Natuna	Jun-04	3237	PSC Exp
5	Asahan	Asia Petroleum	Asia Petroleum Greevest Asahan Jagen Asahan PT Risjad Salim	74 4 12 10	Off, North Sumatra	Dec-96	2185	PSC Exp
6	Asmat	Inparol PTE. Ltd	Inparol Pte Ltd	100	Ons, Papua	Dec-04	30040	PSC Exp
7	Bangkanai	Elnusa Bangkanai	Elnusa Bangkanai Mitra Energia Bangkalai Ltd Bangkalai Petroleum Ltd	51 34 15	Ons, Central Kalimantan	Dec-03	6976	PSC Exp
8	Banyumas	Lundin Banyumas	Star Energy (Banyumas) Ltd ConoccoPhillips Lundin Banyumas Star Energy Internation (Banyumas) Ltd	30 25 25 20	Off, Central Java	May-01	3997	PSC Exp
9	Barito	Altar Sociedade De Investimento Imobiliario	Altar Sociedade De Investimento Imobiliario	100	Ons, South Kalimantan	Dec-04	5244	PSC Exp
10	Belida	PT Sele Raya	PT Sele Raya Belida Nullarbor Holdings Ltd	60 40	Ons, South Sumatra	Dec-04	3391	PSC Exp
11	Bengara I	PT Expan Nusantara	PT Expan Nusantara PT Tri Vicindo	95 5	Ons, East Kalimantan	Sep-99	3649	PSC Exp
12	Bengara II	Continental Geopetro	Continental Geopetro Bengara II Ltd	100	Ons, East Kalimantan	Dec-97	3652	PSC Exp
13	Bengkulu	Energy Bengkulu	Endeavour Energy (Bengkulu Pty Ltd)	100	Ons, Bengkulu	Oct-05	6311	PSC Exp
14	Bentu Segat	Kalila Limited	Kalila (Bentu) Limited	100	Ons, Central Sumatra	May-91	1047	PSC Exp
15	Berau	BP Berau Ltd	BP Berau Ltd KG Berau Petroleum MI Berau B.V Nippon Oil Expl. (Berau) Ltd	48 12 23 17	Ons, Papua	Feb-87	7800	PSC Exp
16	Biliton	Mitra Energy	Asia Petroleum Development (Biliton)	90	Off, Java Sea	Dec-03	6578	PSC Exp

## APPENDIX 16: OIL CONTRACTS

No	Block Name	Operator	Other Interest Holder		Location	Contract	Area	Contract Type
			Company	%		Sign	Km2	
			Mitra Energy Biliton Pte Ltd PT Mitra Energy Development	5 5				
17	Binjai	Sinopec	PT Telaga Binjai Energy	100	Ons, North Sumatra	Sep-97	3889	PSC Exp
18	Blora	Kufpec Indonesia BV	Lundin Blora BV CNOOC Blora Ltd Kufpec Indonesia	43 17 40	Ons, Central Java	Oct-96	3431	PSC Exp
19	Bontang	Bontang Exploration Company	Bontang Exploration PT Eksindo Petroleum Bintang	80 20	Ons, East Kalimantan	Dec-03	2170	PSC Exp
20	Bukat	Eni Bukat Ltd	Eni Bukat Ltd Anadarko Bukat	66 34	Off, East Kalimantan	Feb-98	3644	PSC Exp
21	BULUNGAN	Sebada Ltd	Pearl Oil (Satria) PT Satria Energindo PT Satria Wijayakusuma	85 10 5	Off, East Java	Oct-03	3495	PSC Exp
22	Bulungan	Eni Bulungan BV	Eni Bulungan BV	100	Off, East Kalimantan	Dec-04	4048	PSC Exp
23	Bunga Mas	Bunga Mas International	Bunga Mas Int PT Bunga Mas Energy	75 25	Ons, South Sumatra	Oct-05	2234	PSC Exp
24	Cepu	Mobil Cepu Ltd	Mobil Cepu Ltd Ampolex (Cepu) PT Pertamina EP Cepu	26 25 50	Ons, Central Java	Sep-05	919	PSC Exp
25	Citarum	Bumi Parahyangan Ranhill Energia Citarum	Bumi Parahyangan Ranhill Energia Citarum	100	Ons, West Java	Oct-05	4440	PSC Exp
26	Donggala	Santos Donggala	Santos Donggala Chevron Donggala PT Pertamina	50 35 15	Ons, East Kalimantan	Dec-01	3821	PSC Exp
27	East Ambalat	Chevron East Ambalat	Chevron East Ambalat	100	Off, East Kalimantan	Dec-04	4740	PSC Exp
28	East Bawean II	Husky Oil Bawean Ltd	Husky Oil Bawean Ltd	100	Off, East Java	Sep-06	4255	PSC Exp
29	East Kangean	Greenstar Oil Ltd	Greenstar Oil Ltd	100	Off, East Java	Oct-05	5448	PSC Exp
30	East Sepanjang	PT Easco East Sepanjang	PT Easco East Sepanjang	51	Off, East Java	Dec-04	5083	PSC Exp

## APPENDIX 16: OIL CONTRACTS

No	Block Name	Operator	Other Interest Holder		Location	Contract	Area	Contract Type
			Company	%		Sign	Km2	
			Total E&P East Sepanjang	49				
31	Ganal	Chevron Ganal	Chevron Ganal Eni Ganal Ltd	80 20	Off, East Kalimantan	Feb-98	2459	PSC Exp
32	Halmahera	Halmahera Petroleum	Halmahera Petroleum	100	Ons&Off Maluku	Dec-03	10262	PSC Exp
33	Karapan	Petronas Carigali (Karapan)	Petronas Carigali RIMS Energy Karapan	90 10	Off East Java	Jun-98	1887	PSC Exp
34	Ketapang	ConoccoPhillips (Ketapang)	ConoccoPhillips (Ketapang) Petronas Karigali (Ketapang) Ltd	50 50	Off East Java	Jun-98	2210	PSC Exp
35	Kisaran	PT Chevron Pasific Indonesia	PT Chevron Pasific Indonesia Chevron Kisaran Ltd Taxaco Kisaran Inc	50 25 25	Ons North Sumatra	May-01	3262	PSC Exp
36	Korinci Baru	Kalila (Korinci Baru)	Kalila (Korinci Baru)	100	Ons Central Sumatra	May-97	252.50	PSC Exp
37	Krueng Mane	Eni Krueng Mani Ltd	Eni Krueng Mani Ltd	100	Off North Sumatra	Sep-99	4717	PSC Exp
38	Lampung II	Petronas Carigali (Lampung II Ltd)	Petronas Carigali (Lampung II Ltd)	100	Off Lampung	Sep-06	4140	PSC Exp
39	Lhokseumawe	Zaratex NV	Zaratex NV	100	Off, Aceh	Oct-05	5908	PSC Exp
40	Madura	Santos Sandura (Madura Off)	Santos Sandura (Madura Off) Petronas Carigali Overseas SDN BHD	75 25	Off, East Java	Dec-97	2125	PSC Exp
41	Makasar Strait Area "A"	Chevron Makasar Ltd	Chevron Makasar Pertamina	90 10	Off, East Kalimantan	Jan-90	3516	PSC Exp
42	Manokwari	Irian Petroleum	Irian Petroleum Ltd	100	Ons, Papua	Dec-04	6504	PSC Exp
43	Masela	Inpex Masela Ltd	Inpex Masela Ltd	100	Off, Timor Sea	Nov-98	3221	PSC Exp
44	Merangin - I	PT Medco E&P Merangin	PT Medco E&P Merangin Medco Merangin PT Tep Merangin	41 20 39	Ons, Jambi	Oct-03	3227	PSC Exp
45	Merangin - II	PT Sele Raya	PT Sele Raya Merangin II Merangin BV	63 38	Ons, Jambi	Oct-03	2847	PSC Exp
46	Muara Bakau	Eni Muara Bakau	Eni Muara Bakau BV Anadarko Muara Bakau Ltd	50 50	Off, East Kalimantan	Dec-02	1807	PSC Exp
47	Muriah	PC Muriah Ltd	PC Muriah Ltd	100	Off, Central Java	May-91	2789	PSC Exp
48	Muturi	BP Muturi	BP Muturi Holdings	1	Ons, Papua	Aug-92	1344	PSC Exp

## APPENDIX 16: OIL CONTRACTS

No	Block Name	Operator	Other Interest Holder		Location	Contract	Area	Contract Type
			Company	%		Sign	Km2	
		Holdings BV	BV					
			CNOOC Muturi Ltd	65				
			Indonesia Natural Gas Resources Muturi Inc	34				
49	N.E Natuna	Titan Resources (Natuna) Indonesia Limited	Titan Resources (Natuna) Indonesia Limited PT Ninatek Rika Kruh	90 10	Off, Natuna	May-97	1470	PSC Exp
50	Natuna D Alpha	Mobil Natuna D Alpha	Esso Exploration & Production Natuna Inc MobilOil Indonesia Pertamina	50 26 24	Off, Natuna	Jan-80	4165	PSC Exp
51	North Bali - I	Santos Pty Ltd	Santos (Nth Bali) Moeco North Bali Pty Ltd Total E&P North Bali	40 20 40	Off, Bali	Oct-03	3954	PSC Exp
52	North East Madura - I	KNOC Nemone Ltd	KNOC Nemone Ltd SK E&P Asia Limited PV M1 GS Holdings Corp DE NEM CORP	40 30 20 5 5	Off, East Java	Oct-03	4618	PSC Exp
53	North East Madura - II	KNOC Nemone Ltd	KNOC NEMTWO LTD. Daesung Industrial PV M2 FRONTIER NEMTWO	45 5 20 30	Off, East Java	Oct-03	3434	PSC Exp
54	North East Madura III	Anadarko Petroleum	Anadarko Petroleum	100	Off, East Java	Dec-04	3791	PSC Exp
55	North East Madura IV	Petronas Carigali (Northeast Madura IV)	Petronas Carigali (Northeast Madura IV)	100	Off, East Java	Dec-04	3785	PSC Exp
56	North Tanjung	Permintraccer Petroleum	Permintraccer Petroleum	100	Ons, East Kalimantan	Feb-93	1271	PSC Exp
57	Northwest Natuna	Genting Oil & Gas Pte Ltd	Genting Oil & Gas Pte Ltd	100	Off, Natuna	Dec-04	2305	PSC Exp
58	Nunukan	PT Medco&EP Nunukan	PT Medco E&P Nunukan	100	Off, East Kalimantan	Dec-04	4917	PSC Exp
59	Madura Strait	Husky Oil (Madura) Ltd	Husky Oil (Madura) Ltd	100	Off, East Java	Oct-82	2976	PSC Exp
60	Madura Island	Job Pertamina - Medco Madura	PT Medco E&P Indonesia Pertamina Western Madura Pty Ltd	49 35 16	Ons, East Java	May-97	2729	PSC Exp
61	Palmerah	Tately NV	Tately NV	100	Ons, South Sumatra	Dec-03	1567	PSC Exp
62	Pandan	PT Tropik Energy Pandan	PT Tropik Energy Pandan	100	Ons, South Sumatra	Dec-04	2744	PSC Exp



## APPENDIX 16: OIL CONTRACTS

No	Block Name	Operator	Other Interest Holder		Location	Contract	Area	Contract Type
			Company	%		Sign	Km2	
63	Pangkah	Hess (Indonesia Pangkah)	Hess (Indonesia Pangkah) Hess Pangkah LLC ConoccoPhillips Pangkah Ltd	66 9 25	Off, East Java	May-96	1918	PSC Exp
64	Papalang	Anadarko Papalang	Anadarko Papalang Eni Papalang Limited Santos (Papalang) Zudavi N.V	24 25 30 31	Off, East Kalimantan	Dec-01	4200	PSC Exp
65	Pasangkayu	Marathon International	Marathon International	100	Off, Central Sulawesi	Sep-06	4708	PSC Exp
66	Pasiraman	Job Pertamina - Golden Spike Pasiraman	Golden Spike South Sumatra Ltd Pertamina	60 40	Ons, South Sulawesi	Feb-98	1717	PSC Exp
67	Popodi	Anadarko Popodi LTD	Anadarko Popodi Ltd Eni Popodi Ltd Santos (Popodi) Zodan NV	24 25 20 31	Off, East Kalimantan	Dec-01	5438	PSC Exp
68	Rapak	Chevron Rapak Ltd	Chevron Rapak Ltd Eni Rapak Ltd	80 20	Off, East Kalimantan	Dec-97	1452	PSC Exp
69	Rembang	Orna International	Orna International	100	Off, East Java	Oct-03	4220	PSC Exp
70	Rombebai	Petroleum Rombebai	Nations Petroleum Romembai BV	100	Ons, Papua	Nov-98	11590	PSC Exp
71	Saliki	Total Saliki	Total Saliki Inpex Off. Northwest Mahakam Ltd	50 50	Off, East Kalimantan	May-97	201	PSC Exp
72	Sampang	Santos (Sampang) Pty Ltd	Santos (Sampang) Cue Sampang Pty Ltd Singapore Petroleum Sampang Ltd	45 15 40	Off, East Java	Dec-97	1333	PSC Exp
73	Sareba	Lundin Sareba BV	Lunding Sareba BV	100	Ons, Papua	Feb-98	3607	PSC Exp
74	Sebatik	Sentosa (Sebatik)	Star Energy Sentosa (Sebatik)	100	Off&Ons East Kalimantan	Oct-05	2132	PSC Exp
75	Sebuku	Pearl Oil Sebuku	Pearl Oil (sebuku) Fuel X Sebuku Ltd	50 50	Off, East Kalimantan	Sep-97	5920	PSC Exp
76	Senangka - Senipah	PT Kutai Etam Petroleum	PT Kutai Etam Petroleum	100	Ons, East Kalimantan	Dec-04	123	PSC Exp
77	Seruway	Transworld Seruway Transportation Ltd	Seruway  Rion Energy Ltd GFI Oil & Seruway	55  23 23	Off, Aceh	Dec-04	3791	PSC Exp

## APPENDIX 16: OIL CONTRACTS

No	Block Name	Operator	Other Interest Holder		Location	Contract	Area	Contract Type
			Company	%		Sign	Km2	
78	Simenggaris	Job Pertamina-Medco Simenggaris Pty Ltd	Medco Simenggaris Pty Ltd Pertamina	63 38	Ons, East Kalimantan	Feb-98	1357	PSC Exp
79	South Jambi Block B	ConoccoPhilips (South Jambi) Ltd	ConoccoPhilips (South Jambi) Ltd Pertamina Petrochina International Jambi Ltd	45 25 30	Ons, South Sumatra	Jan-90	1538	PSC Exp
80	South Madura	South Madura Exploration Company Pty Ltd	Exploration Company Pte, Ltd PT Eksindo South Madura	90 10	Off, East Java	Oct-03	1586	PSC Exp
81	Surumana	ExxonMobil E&P Surumana	ExxonMobil E&P Surumana	100	Off, Central Sulawesi	Sep-06	5340	PSC Exp
82	Tanjung Aru	Amerada Hess (Ind -Tanjung Aru) Ltd	Amerada Hess (Ind -Tanjung Aru) Ltd Chevron Indonesia Petronas Carigali Pertamina	33 10 43 15	Off, East Kalimantan	Dec-01	4190	PSC Exp
83	Tanjung Jabung	Petronas Carigali Tanjung Jabung Pty	Petronas Carigali Tanjung Jabung Pty Consolidated Energy (Tanjung Jabung) Ltd	90 10	Ons, Jambi	May-97	4150	PSC Exp
84	Tarakan East Kalimantan	Provident Indonesia Energy LLC	Provident Indonesia Energy LLC	100	Ons, East Kalimantan	Oct-03	639	PSC Exp
85	Tengah	Total E&P Indonesia	Pertamina Total Tengah Inpex Tengah Ltd	50 25 25	Off, East Kalimantan	Oct-88	383	PSC Exp
86	Warim	ConoccoPhillips Warim Ltd	ConoccoPhillips Warim Ltd Santos (Warim) Ltd	80 20	Ons, Papua	May-87	20949	PSC Exp
87	West Kampar	PT Sumatra Persada Energy	PT Sumatra Persada Energy Oilex (West Kampar)	55 45	Ons, Central Sumatra	Oct-05	4471	PSC Exp
88	West Salawati	Pearl Oil (salawati) Ltd	Pearl Oil Salawati Ltd Genting Oil Salawati Pte	50 50	Ons, Papua	Dec-03	4852	PSC Exp
89	Wiriagar	BP Wiriagar Ltd	BP Wiriagar Ltd CNOOC Wiriagar Overseas Ltd KG Wiriagar Petroleum Ltd (Kanematsu)	38 42 20	Ons, Papua	Feb-93	304	PSC Exp

## APPENDIX 16: OIL CONTRACTS

No	Block Name	Operator	Other Interest Holder		Location	Contract	Area	Contract Type
			Company	%		Sign	Km2	
90	Wokam	Korea National Oil Corp	Korea National Oil Corp Frontier Wokam Corp	80 20	Off, Papua	Dec-97	6705	PSC Exp
91	Yapen	Nations Petroleum (Yapen)BV	Nations Petroleum (Yapen)BV PT Medco E&P Yapen	85 15	Ons, Papua	Sep-99	9500	PSC Exp
92	"B" Block	ExxonMobil Oil Indonesia Inc.	ExxonMobil Oil Indonesia Inc.	100	Ons, Aceh	Jul-89	1309	PSC Prod
93	Attaka	Indonesia Petroleum Exploration	Indonesia Petroleum Exploration	100	Off, East Kalimantan	Mar-91	115	PSC Prod
94	Bangko	International Bangko Ltd	International Bangko Ltd SK Corporation	75 25	Ons, Jambi	Feb-95	1925	PSC Prod
95	Bawean	Camar Resources	Camar Resources Canada Inc Camar Bawean Petroleum Ltd Indo Pasific Resources (Java)	5 65 30	Off, East Java	Feb-81	15130	PSC Prod
96	"A" Block North Sumatra	ConoccoPiliips (Aceh)Ltd	ConoccoPiliips (Aceh)Ltd ExxonMobil Oil Indonesia Inc.	50 50	Ons, Aceh	Jul-89	1803	PSC Prod
97	Brantas	LapindoBrantas	Lapindo Brantas Inc Novus Indonesia Brantas Company Santos Brantas Pty Ltd	50 32 18	Ons, East Java	Apr-90	3042	PSC Prod
98	Bula	Lion Petroleum (Seram) Ltd	Lion Petroleum (Seram) Ltd	100	Ons, Maluku	May-00	35	PSC Prod
99	Coastal Plains& Pekan Baru CPP	Pertamina	Pertamina PT Bumi Siak Pusako	50 50	Ons, Central Sumatra	Aug-02	9866	PSC Prod
100	Corridor	ConoccoPhilipps Grisik Ltd	ConoccoPhilipps Grisik Ltd Pertamina Talisman (Corridor)	54 10 36	Ons, South Sumatra	Dec-83	2359	PSC Prod
101	East Kalimantan	Chevron Indonesia	Chevron Indonesia Inpex Off. Northwest Mahakam Ltd	93 8	Off, East Kalimantan	Jan-91	3323	PSC Prod
102	Gebang	Job Pertamina-Costa	Costa International Group Ltd Pertamina	50 50	Ons&Off North Sumatra	Nov-85	980216	JOB Prod
103	Jabung	Petrochina International Jabung	Petrochina International Jabung Amerada Hess (Ind - Jabung) Ltd Kerr-McGee Indonesia Inc	30 30 30	Ons, Jambi	Feb-93	1642	PSC Prod

## APPENDIX 16: OIL CONTRACTS

No	Block Name	Operator	Other Interest Holder		Location	Contract	Area	Contract Type
			Company	%		Sign	Km2	
			Pertamina	10				
104	Jambi-Merang	Job Pertamina-Amerada Hess Jambi Merang	Amerada Hess Jambi Merang Pertamina Pasific Oil & Gas Ltd	25 50 25	Ons, South Sumatra	Feb-89	1028	JOB Prod
105	Kakap	Star Energy (Kakap)	Star Energy (Kakap) Ltd Novus Nominess Pty Ltd Novus Petroleum Canada (Kakap) Ltd Novus UK (Kakap 2) Ltd	31 3 3 6	Off, Natuna	Mar-75	2010	PSC Prod
106	Kepala Burung	Petrochina International (Bermuda) Ltd	Petrochina International (Bermuda) Ltd Lundin International BV Pearl Oil (Basin) Limited Pertamina	30 26 34 10	Ons, Papua	Oct-96	1000	PSC Prod
107	Lematang	PT Medco E&P Lematang	PT Medco E&P Lematang Lunding Lematang BV	74 26	Ons, South Sumatra	Apr-87	227	PSC Prod
108	Mahakam	Total E&P Indonesie	Total E&P Indonesie Inpex Ltd	50 50	Ons, East Kalimantan	Jan-91	3147	PSC Prod
109	Malacca Strait	Kondur Petroleum	Kondur Petroleum  Malacca Petroleum Ltd OOGC LTD. PT Imbang Tata Alam	34  7 33 26	Off, Central Kalimantan	Dec-97	9476	PSC Prod
110	Natuna Sea Block A	Premier Oil Natuna Sea BV	Premier Oil Natuna Sea BV Kuwait Foreign Petroleum Exploration Company Natuna 1 B.V. Natuna 2 B.V.	29  33 15 23	Off, Natuna	Oct-79	4999	PSC Prod
111	NSO/ NSO EXT	ExxonMobil Oil Indonesia Inc.	ExxonMobil Oil Indonesia Inc.	100	Ons&Off North Sumatra	Aug-92	3633	PSC Prod
112	Off. North West Java	BP West Java Ltd	BP West Java Ltd C. Itoh Energy Dev CNOOC ONWJ LTD Inpex Java Ltd Orchard Energy Java BV	46 3 37 7 5	Off Java Sea	Apr-90	11052	PSC Prod

## APPENDIX 16: OIL CONTRACTS

No	Block Name	Operator	Other Interest Holder		Location	Contract	Area	Contract Type
			Company	%		Sign	Km2	
			Talisman Resources	2				
113	Ogan Komering	Job Pertamina Talisman (Ogan Komering)	Talisman (Ogan Komering) Ltd Pertamina	50 50	Ons, South Sumatra	Feb-88	1155	JOB Prod
114	Kangean	EMP Kangean Ltd	EMP Kangean Ltd EMP Exploration Kangean Ltd	60 40	Ons&Off East Java	Nov-80	8128	PSC Prod
115	Pase	ExxonMobil Oil Indonesia	Mobil Pase Inc	100	Ons, North Sumatra	Feb-81	920	PSC Prod
116	Pendopo& Raja	Job Pertamina-Golden Spike Indonesia	Golden Spike Energy Indonesia Ltd Pertamina	50 50	Ons, North Sumatra	Jul-89	340	JOB Prod
117	Rimau	PT Medco E&P Rimau	PT Medco E&P Rimau	100	Ons, North Sumatra	Dec-01	1577	PSC Prod
118	Rokan	PT Chevron Pasific Indonesia	PT Chevron Pasific Indonesia Chevron Indonesia	50 50	Ons, North Sumatra	Aug-71	6220	PSC Prod
119	Salawati Kepala Burung	Job Pertamina-Petrochina Salawati	Pertamina Petrochina-Itl.Kepala Burung Lundin Ind BV Pearl Oil Island Ltd	50 17 15 19	Ons Papua	Apr-90	1098	JOB Prod
120	Sanga Sanga	Virginia Indonesia LLC	Virginia Indonesia LLC BP East Kalimantan Lasmo Sanga Sanga Ltd OPIC Oil Houston Ltd	8 26 26 20	Ons, East Kalimantan	Apr-90	2602	PSC Prod
121	Selat Panjang	Petroselat Ltd	PT Petronusa Bumibakti International Mineral Resources Petrochina International Selat Panjang, Ltd	51 4 45	Ons, Central Sumatra	Sep-91	1317	PSC Prod
122	Sengkang	Energy Equity EPIC Sengkang	Energy Equity EPIC (Sengkang) Pty, Ltd	100	Ons, South Sulawesi	Jun-95	3470	PSC Prod
123	Seram Non Bula	Citic Seram Energy	Kufpec Indonesia Lion Petroleum Seram Ltd Citic Seram Energy Limited Gulf Petroleum Company KSCC	30 3 51 17	Ons, Maluku	May-00	6859	PSC Prod

## APPENDIX 16: OIL CONTRACTS

No	Block Name	Operator	Other Interest Holder		Location	Contract	Area	Contract Type
			Company	%		Sign	Km2	
124	Siak	Chevron Pasific Indonesia	Chevron Pasific Indonesia	100	Ons, Central Sumatra	Mar-91	2480	PSC Prod
125	South&Central Sumatra	PT Medco E&P Indonesia	PT Medco E&P Indonesia	100	Ons, South Sumatra	Jul-89	4451	PSC Prod
126	South Natuna Sea Block B	ConoccoPhillips Indonesia Inc	ConoccoPhillips Indonesia Inpex Ltd Texaco Natuna Inc	40 35 25	Off, Natuna	Aug-90	11162	PSC Prod
127	South East Sumatra	CNOOC SES LTD.	CNOOC SES LTD. Inpex Sumatra Ltd KNOC Sumatra Ltd MC Oil and Gas Sumatra BV Talisman Indonesia (Sunda) Ltd Talisman UK (South Sumatra) Ltd Talisman Resources (Bahamas) Ltd	66 13 9 5 4 2 2	Off, South Sumatra	Dec-91	8276	PSC Prod
128	Tarakan East Kalimantan	PT Medco E&P Indonesia	PT Medco E&P Indonesia	100	Ons, East Kalimantan	Dec-01	180	PSC Prod
129	Toili	Job Pertamina - Medco Tomori Sulawesi	Pertamina Medco Tomori Sulawesi	50 50	Off, South Sulawesi	Dec-97	452	JOB Prod
130	Tuban	Petrochina East Java	Pertamina Petrochina International Java Ltd Ensearch Far Ltd	50 25 25	Ons, East Java	Feb-88	1478	JOB Prod
131	Tungkal	Pearl Oil (Tungkal)	Pearl Oil (Tungkal)	100	Ons, South Sulawesi	Aug-92	2285	PSC Prod
132	West Madura	Pertamina	Pertamina CNOOC Madura Ltd Kodeco Energy Comp	50 25 25	Off, East Java	May-81	1615	JOA Prod
133	Babo	BP Bomberai Ltd	BP Bomberai Ltd KG Babo Petroleum	80 20	Ons, Papua	Aug-90	3166	PSC Termination Process
134	BONE	Energy Equity Bone Bay Ltd	Energy Equity Bone Bay Ltd	100	Off, East Sulawesi	May-00	4451	PSC Termination Process
135	East Arguni	BP East Arguni Ltd	BP East Arguni Ltd INPEX EAST ARGUNI	80 20	Ons, Papua	Nov-98	3660	PSC Termination Process

## APPENDIX 16: OIL CONTRACTS

No	Block Name	Operator	Other Interest Holder		Location	Contract	Area	Contract Type
			Company	%		Sign	Km2	
136	Mountain Front-Kuantan	PT Chevron Pasific Indonesia	PT Chevron Pasific Indonesia Pertamina	90 10	Ons, Central Sumatra	Jan-75	3000	PSC Termination Process
137	West Arguni	BP West Arguni	BP West Arguni Inpex West Arguni	80 20	Ons, Papua	Nov 98	2615	PSC Termination Process

### APPENDIX 16.2: TOTALLY RELINQUISHED CONTRACTS

No	Block Name	Operator	Other Interest Holder		Location	Contract	Area	Contract Type
			Company	%		Sign	Km2	
1	Langsa	Job Pertamina-ExxonMobil Oil Indonesia Inc	Job Pertamina-ExxonMobil Oil Indonesia Inc Pertamina	80 20	Off, North Sumatra	Nov-89	2722	JOB
2	Jatiluhur On. West Java	Job Pertamina - Greka Energy (Indonesia) Ltd	Job Pertamina-Greka Energy (Indonesia) Ltd Pertamina	75 25	Ons, West Java	Sep-97	5071	JOB
3	Sesulu	Unocal Sesulu Ltd	Eni Sesulu Ltd Unocal Sesulu Ltd	20 80	Off, Kutai	Sep-97		PSC
4	Nila	ConoccoPhilips Nila Ltd	ConoccoPhilips Nila Ltd Inpex Natuna Ltd Talisman (Nila) Ltd	40 35 25	Off, Natuna	Dec-01	3945	PSC
5	Bawean I	BP Bawean Ltd	BP Bawean Ltd Santos (Bawean) Pty Ltd	55 45	Off, East Java	Dec-01	9559	PSC
6	Sangkarang	Unocal Sangkarang Ltd	Inpex Off. SouthSulawesi Ltd Unocal Sangkarang Ltd	25 75	Off, Sulawesi	Nov-98	5911	PSC
7	Natuna D Alpha	ExxonMobil Oil Indonesia Ltd	Esso Exploration& Production Natuna Inc Mobil Oil Indonesia Pertamina	50 26 24	Off, Natuna	Jan-80	4165	PSC

## APPENDIX 16: OIL CONTRACTS

### APPENDIX 16.3: EXPLORATION AREAS OFFERED IN 2005 AND 2006

No	Block	Location	Status
<b>2005 Tender Offer</b>			
1	Cakalang	Offshore Natuna	Unsold
2	Kerapu	Offshore Natuna	No bidder
3	Barongan	Offshore Natuna	No bidder
4	East Bawean I	Off. East Java	No bidder
5	East Bawean II	Off. East Java	Awarded to Husky Energy (05/06/06)
6	Lampung I	Off. Lampung	No bidder
7	Lampung II	Off. Lampung	Awarded to Petronas Carigali (05/06/06)
8	Buton I	On/Off. Buton	Unsold
9	Buton II	On/Off. Buton	Unsold
10	Damplas	Makassar Strait	No bidder
11	Baleisang	Makassar Strait	No bidder
12	Pasangkayu	Makassar Strait	Awarded to Marathon & Talisman (05/06/06)
13	Surumana	Makassar Strait	Awarded to ExxonMobil (05/06/06)
14	Kamrau	On/Off. West Papua	No bidder
<b>2005 Direct Offer</b>			
1	Lhokseumawe	Offshore Aceh	Awarded to Zaratex NV (08/04/05)
2	West Kampar	Riau	Awarded to PT Sumatera Persada Energi (08/04/05)
3	Bungamas	South Sumatra	Awarded to PT Erry Guna (08/04/05)
4	Bengkulu	Bengkulu	Awarded to PT Commissioning Services Indonesia (08/04/05)
5	Citarum	West Java	Awarded to PT Bumi Parahyangan Ranhill Energia (08/04/05)
6	NE Madura V	Off. Madura	Unsold (2004/2005)
7	North Bali II	Off. Bali	Unsold (2003/2005)
8	East Kangean	Off. East Java	Awarded to Energi Mega Persada (08/04/05)
9	Taritip	Makassar Strait	Unsold (2002/2005)
10	Sebatik	East Kalimantan	Awarded to PT Star Energy (08/04/05)
11	Amborip VI	Off. Papua	Awarded to ConocoPhillips (08/04/05)
12	Amborip V	Off. Papua	Unsold (2002/2005)
13	Wailawi	East Kalimantan	Awarded to BUMD Benuo Taka (08/05/04)
<b>2006 Tender Offer</b>			
1	SE Mahakam	Off East Kalimantan	Awarded to Total E&P SE Mahakam, Inpex Corp
2	West Air Komering	On Sumatera	Awarded to PT Tiara Bumi Petroleum
3	Tuna	Off. Natuna	Awarded to Premier Oil Ltd & Mitsui Oil Expl Co Ltd
4	Karama	Makassar Strait	Awarded to PT Pertamina (Persero) & Statoil ASA
5	Mandar	Makassar Strait	Awarded to Esso Exploration Ltd
6	Sageri	Makassar Strait	Awarded to Talisman (South Makassar) Ltd
7	Lampung	Off. Lampung	Awarded to PT ANP Energy
8	Ujungkulon	Off West Java	Awarded to M3Nergy Berhad
9	Enrekang	South Sulawesi	Awarded to PT Sigma Energi Petrogas
10	Malunda	Makassar Strait	Unsold
11	South Mandar	Makassar Strait	Unsold
12	Sadang	Makassar Strait	Unsold
13	South Sageri	Makassar Strait	Unsold
14	Dolphin	Natuna Sea	Unsold



## APPENDIX 16: OIL CONTRACTS

No	Block	Location	Status
15	Cucut	Natuna Sea	Unsold
16	Cakalang	Natuna Sea	Unsold
17	Kerapu	Natuna Sea	Unsold
18	Baronang	Natuna Sea	Unsold
19	Tigau	East Kalimantan	Unsold
20	Mentana	East Kalimantan	Unsold
<b>2006 Direct Offer</b>			
1	Duyung	Off. Natuna	Awarded to Transworld Exploration Ltd
2	Pari	Off. Natuna	Awarded to Indoreach Exploration Ltd
3	Sekayu	On. Sumatera	Awarded to Star Energy (Sekayu)
4	Batanghari	On. Sumatera	Awarded to PT Gregori Gas Perkasa & CNOOC Batanghari
5	Batugajah	On. Sumatera	Awarded to Ranhill Jambi Inc. Pte Ltd
6	Tonga	On. Sumatera	Awarded to Mosesa Petroleum, PT Kencana Surya Perkasan & PT Petross
7	Lemang	On. Sumatera	Awarded to PT Hexindo Gemilang Jaya & PT Indelberg Indonesia
8	Karang Agung	On. Sumatera	Awarded to PT Odira Energy Karang Agung
9	Sibaru	Off. East java	Awarded to PT Mitra Energi (Indonesia Sibaru) Ltd & Pearl Oil (Sandstone)
10	North Kangean	Off. East java	Awarded to Petrojava North Kangan Inc
11	West Sangatta	On East Kalimantan	Awarded to Kalimantan Kutai Energy
12	Kutai	On/Off. East Kalimantan	Awarded to Ephindo Kutai Ltd-Serica Kutei BV
13	Wain	On. East Kalimantan	Awarded to PT Pandawa Prima Lestari
14	Kuma	Makassar Strait	Awarded to Conocophillip (Kuma) Ltd & Stat Oil Indonesia AS
15	Budong-budong	Makassar Strait	Awarded to PT Gema Terra, Tately NV & TGS Nopec Invest AS
16	Karana	Makassar Strait	Awarded to Pearl Oil (K) Ltd
17	Buton	Off. Buton	Awarded to Japex Buton Ltd, Premier Oil FBV & Kufpec Indonesia (Buton) Ltd
18	Alasjati	On. East Java	Awarded to PT Insani Bina Perkasa
19	Mahakam Hilir	On East Kalimantan	Unsold
20	Situbondo	East Java	Unsold
21	Gunting	East Java	Unsold

For further information, contact:

Working Area Bidding Team - Directorate General of Oil and Gas

Plaza Centris 1st Floor

Jl. H.R. Rasuna Said Kav. B-5, Kuningan, Jakarta Selatan 12910

Phone: 62-21-5268963, 62-21-5268910 ext. 136, Fax: 62-21-5269129

### APPENDIX 16.4: CURRENT CONTRACT ARRANGEMENTS

**Government Granting Agreements (Cooperation Contracts):** The bundle of rights and obligations granted to an investor to invest in cooperation with the GOI in oil and gas Exp and exploitation.

- Production Sharing Contract (PSC)
  - Cooperation Contract for oil and gas Exp and exploitation between BP Migas and a private investor (which includes foreign and domestic companies as well as P.T. Pertamina).
  - BP Migas is the supervisor or manager of the PSC
  - The investors are participating interest holders and Contractors
  - Government take is under a production sharing arrangement whereby the GOI and the Contractors take a split of the production measure in revenue based on PSC agreed percentages. Operating costs are recovered from production through Contractor cost oil formulas as defined by the PSC
  - Contractor has the right to take and separately dispose of its share of oil and gas
  - Title of the hydrocarbons passes to the Contractor at export or delivery point
  - Cost of Recovery will be based on Plan of Development basis, excluded for community development in production area.
- Technical Assistance Contract (TAC)
  - Variation of a Cooperation Contract or PSC
  - Typically used for established Prod areas and therefore covers exploitation only
  - BP Migas is the supervisor or manager of the TAC
  - Operating costs are recovered from production
  - Contractor does not typically share in all production
  - For areas where Exp was being encouraged the TAC includes Exp and exploitation.
  - GOI has announced that existing TACs will not be extended
- Enhanced Oil Recovery (EOR)
  - Variation of a Cooperation Contract or PSC (i.e. a Cooperation Contract for oil and gas exploitation between BP Migas and a private investor, which includes foreign and domestic companies as well as PT Pertamina).
  - Used for established Prod fields with the intent of applying advanced technology to increase the recovery of hydrocarbons in the reservoirs
  - Pertamina is usually a participant along with investors; collectively the Contractor
  - BP Migas is the supervisor or manager of the EOR
  - Operating costs are recovered from production and typically capped at a percentage. In some cases the incremental oil lifted from the enhanced recovery operation may be shared on a production sharing basis.
  - In many cases, the EOR may also include provisions concerning how the parties will conduct petroleum operations.

#### **Agreements Governing the Conduct of Operations:**

- Joint Operating Agreement (JOA)
  - A separate agreement in addition to the Cooperation Contract
  - Governs the relations of the participating interest holders, defining their rights and obligations, and describing the procedures the Contractors will abide by to conduct petroleum operations.

## APPENDIX 16: OIL CONTRACTS

- The JOA typically includes: (1) the scope of operations; (2) the designation, rights and obligations of the operator; (3) the establishment of an Operating Committee including voting rights, meeting procedures and subcommittees; (4) operations by less than all the participating interest parties; (5) production disposition; (6) relinquishment, withdrawal and assignment; (7) confidentiality; (8) force majeure; (9) dispute resolution and choice of law
- Joint Operating Body (JOB)
  - Typically part of the Joint Operating Agreement
  - Governs the operations on behalf of the participating interest holders by establishing a non-legal entity, the Joint Operating Body, to conduct the petroleum operations
  - Representatives of the participating interest parties appoint representatives to the JOB.
  - The JOB prepares operating work program and budgets and carries out the operations pursuant to the JOB Agreement and the Cooperation Contract.
  - The participating interest holders remain the Contractors, and like all Cooperation Contracts, the arrangement is supervised by BP Migas.

## APPENDIX 17: OIL COMPANIES IN INDONESIA

### APPENDIX 17.1: SELECTED PRODUCTION SHARING CONTRACTORS IN INDONESIA (name of Working Areas)



#### **ANADARKO PETROLEUM**

##### **INDONESIA**

(PSC: N.E Madura III)

Mr. Gary Ford, President and General Manager  
Jakarta Stock Exchange Bld. Tower 1, Level 29,  
Suite # 2902,  
Jl. Jend. Sudirman Kav. 52-53, Jakarta 12190  
Tel: (021) 3006-1600, Fax: (021) 3006-1699

Head Office:

1201 Lake Robbins Drive  
The Woodlands, Texas 77380  
Tel: 832-636-1000  
[www.anadarko.com](http://www.anadarko.com)



#### **AMERADA HESS INDONESIA**

(PSCs: Pangkah, Natuna A; Merang JOB)

Colin Munro, General Manager  
Sentral Senayan, 15<sup>th</sup> floor  
Jl. Asia Afrika No. 8, Jakarta 10220  
Tel: 572-5744, Fax: 572-5733

Head Office:

Amerada Hess International  
33 Grosvenor Place  
London, England SW1X 7HY  
Tel: (171) 823-2626, Fax: (171) 887-2089  
[www.hess.com](http://www.hess.com)

#### **BINA WAHANA PETRINDO**

(Meruap)

Mr. A. Kurniawan, President Director  
Gelael Bldg, 2<sup>nd</sup> floor  
Jl. Tebet Raya 8-10, Jakarta 12810  
Tel. (021) 8370-3620, Fax. (021) 8370-3621



BP

(PSCs: Offs North West Java – ONWJ, Berau,  
Muriah, Wiriagar, W. Arguni, E. Arguni, Bab)  
Mr. John Minge  
President and Resident Manager  
Perkantoran Hijau Arkadia, Tower D  
Jl. Letjen. TB Simatupang, Kav. 88, Jakarta  
12520  
Tel: 7883-8000, Fax: 7883-8333

Head Office:

British Petroleum  
Uxbridge 1, Hariefield Road, Uxbridge,  
Middlesex UB8 1PD, United Kingdom  
Tel: (01895) 877-007, Fax: 01895-877-877  
[www.bp.com](http://www.bp.com)



#### **BUMI SIAK PUSAKO**

(Coastal Plain Pekanbaru – CPP JOB)

Mr. Slamet Wibisono, General Manager  
Menara Bank Danamon Lt. 20  
Jl. Prof. Dr. Satrio Kav. E IV / 6, Kawasan Mega  
Kuningan, Jakarta 12950  
Tel. 5798-2700, Fax: 5799-1553

#### **CHEVRON INDO ASIA**

Mr. Chris Prattini  
Managing Director  
Central Senayan I, 18th Floor  
Jl. Asia Afrika No. 8, Jakarta 10270  
Tel. (021) 573-1020, Fax. (021) 573-1030



Subsidiaries:

#### **Chevron Pacific Indonesia (CPI)**

(PSCs: Rokan, MFK, Kisaran, Siak)  
Suwito Anggoro, President Director  
Sarana Jaya Building, 17<sup>th</sup> floor  
Jl. Budi Kemuliaan 1/1, Jakarta 10111  
Tel: 351-2151, Fax: 351-2065

Subsidiary:

#### **Chevron Indonesia**

(PSCs: Sesulu, W. Pasir, Rapak, Lompa/Makassar St,  
Sangkarang, Ganai)  
Mr. Chris Prattini, Managing Director  
Sentral Senayan I, Office Tower, 11<sup>th</sup> floor  
Jl. Asia Afrika No. 8, Jakarta 10270  
Tel: 573-1020, Fax: 573-1030

Head Office:

6001 Bollinger Canyon Rd.  
San Ramon, CA 94583, U.S.A.  
Tel. +1-925-842-1000

## APPENDIX 17: OIL COMPANIES IN INDONESIA



### **CNOOC**

(PSCs: Wiriagar, Berau, Salawati, Jabung, Bangko, SE Sumatra, Sokang)

Mr. Fang Zhi, President & Gen. Manager  
Jakarta Stock Exchange Bld. 7<sup>th</sup> Floor  
Jl. Jendral Sudirman Kav. 52, Jakarta 12190  
Tel: 515-1001, Fax: 515-9525  
[www.cnoocltd.com](http://www.cnoocltd.com)



### **CONOCO PHILLIPS INDONESIA**

(PSCs: South Jambi, Block A, Bentu, Korinci Baru, Block B, Nila, Pangkah, Ketapang, Banyumas, Warim; Corridor TAC/PSC; Sakakemang JPB)

Mr. Trond Erik Johansen, President & GM  
Ratu Prabu II Building  
Jl. TB Simatupang  
Jakarta  
Tel: 785-41000  
[www.conocophillips.com](http://www.conocophillips.com)



### **CONTINENTAL - WISDOM**

(PSC: Bengara II)  
Mr. Richard L. McAdoo, President & CEO  
Jl. Kenanga 6, Cilandak, Jakarta 12560  
Tel. 788-32949 Fax: 780-4344  
[www.continentalenergy.com](http://www.continentalenergy.com)



### **PT ENERGI MEGA PERSADA Tbk (EMP)**

(PSCs: Brantas, Malacca Strait, Kangean, Korinci Baru, Bentu; Gebang JOB/PSC; Sungai Gelam TAC, Semberah TAC)  
Mr. Chris V Ponto, President Director  
Wisma Mulia 33<sup>rd</sup> Fl, Suite 3301  
Jl. Jend. Gatot Subroto Kav. 42,  
Jakarta 12710  
Tel. (021) 5290-6260, Fax. (021) 5290-6254  
[www.energi-mp.com](http://www.energi-mp.com)

#### Subsidiaries:

- Costa International (Gebang)
- Lapindo Brantas (Brantas)
- Kalila (Bentu)
- Kalila (Korinci)
- Insani Mitra Gelam (Sungai Gelam)
- Semberani Persada (Semberah)
- Kondur Petroleum (Malacca Strait)
- EMP Kangean (Kangean)

### **ENERGY EQUITY**

(PSCs: Bone, Senggang; TACs: Gajah Besar, Biru, Talang Babat)

Mr. Paul Ivan Edwards, President  
Plaza 89, 8<sup>th</sup> Floor, Suite 802  
Jl. H.R. Rasuna Said Kav. X-7/No.6  
Jakarta 12940  
Tel: 522-2806, Fax: 522-2807

#### Head Office:

Energy Equity Corporation Ltd.  
1162 Hay Street, West Perth WA 6005  
Perth 6000, Western Australia  
Tel: (619) (9) 366-4777, Fax: 366-4778



### **ENI INDONESIA LTD**

(PSCs: Ambalat, Bukat, Bulungan, Ganal, Krueng Mane, Muara Bakau, Rapak, Sesulu; Malagot PSC/JOB)

Mr. Luca Bertelli, Managing Director  
Plaza Kuningan, South Tower, 9<sup>th</sup> floor  
Jl. H.R. Rasuna Said Kav. C11-14  
Jakarta 12940  
Tel: 3000-3200, Fax: 3000-3230  
[www.eni.it](http://www.eni.it)



### **EXXONMOBIL OIL INDONESIA**

(PSCs: Block 'A', Cepu, Natuna; Langsa JOB, Pase, Madura St.)

Mr. Terry Mc Phail, President & GM  
Wisma GKBI, 29<sup>th</sup> floor  
Jl. Jendral Sudirman 28, Jakarta 10210  
Tel: 571-5010 Fax: 574-0606  
[www.exxonmobil.com](http://www.exxonmobil.com)

#### Head Office:

ExxonMobil Oil Corp.  
5959 Las Colinas Blvd  
Irving, Texas 75039  
Tel: (972) 444-1107/8/9

### **GOLDEN SPIKE ENERGI INDONESIA**

(Raja-Pendopo JOA/JOB, Pasiraman PSC)

Mr. Maher Algadri, President Director  
Menara Rajawali, 19<sup>th</sup> floor  
Jl. Mega Kuningan-Lot 5.1, Jakarta 12950  
Tel. (021) 576-1333, Fax. (021) 576-1737

## APPENDIX 17: OIL COMPANIES IN INDONESIA

### **HALLIBURTON**

### **HALLIBURTON ENERGY**

(Abab/Raja)  
Mr. Mark Phillips, President Director  
Cilandak Commercial Estate Building 107M  
Jl Raya Cilandak KKO  
Jakarta  
Tel. 780-1100, Fax: 780-1154



### **INPEX CORPORATION**

(PSCs: Attaka, Offs Mahakam)

Mr. Hirohisa Ota, General Manager  
Mid Plaza I, 7<sup>th</sup> floor  
Jl. Jendral Sudirman Kav. 10-11,  
Jakarta 10220  
Tel: 570-0557, 570-0540, Fax: 570-0575  
[www.inpex.co.jp](http://www.inpex.co.jp)

Head Office:  
INPEX Corporation  
17<sup>th</sup> Fl. Ebisu Neonato No 1-18  
Ebisu 4-Chome  
Shibuya-ku, Tokyo 150, Japan  
Tel: (03) 5448-1201, Fax: (03) 5448-1242

### **INDOSPEC ASIA**

(Banga Dua TAC)  
Mr. Agung Hermawan, President Director  
JL. Panglima Polim 14 No. 9, Jakarta  
Tel: (021) 726-4611, Fax: (021) 722-7377

### **KALREZ PETROLEUM**

(PSCs: Bula/Seram, Seram non-Bula)  
Mr. Chew Sin Hwa, General Manager  
Menara Bidakara, 5th fl  
Jl. Jend. Gatot Subroto kav 71-73  
Jakarta 12870  
Tel. 837-93125, Fax: 837-93150

Head Office:  
Kalrez Energy  
Hongkong  
[www.kalrez.com.au](http://www.kalrez.com.au)

### **KODECO ENERGY COMPANY**

(PSC: Java Sea; Poleng TAC)  
Mr James Hendricks, President Director  
JSX Building Tower I 23<sup>rd</sup> Floor  
Jl. Jend. Sudirman Kav. 52, Jakarta  
Tel: (021) 515-1170 Fax: (021) 515-1175

Head Office:  
Kodeco Energy Company Ltd  
10<sup>th</sup> Fl Donghwa Bld 58-7  
Susomun- Dong, Joong Ku, South Korea  
Tel: 822-318-2831, Fax: 822-318-2975



### **KOREA NATIONAL OIL CORPORATION (KNOC)**

(PSCs: SES, NE Madura I, NE Madura II, Wokam)  
Mr Kwon Hum Sam, President Director  
Gedung BRI II, 17th floor  
Jl Jendral Sudirman kav 44-46  
Jakarta 10210  
Tel: 579-32517, Fax: 579-32519  
[www.knoc.co.kr](http://www.knoc.co.kr)



### **KUFPEC REGIONAL VENTURES INDONESIA**

(Seram)  
Mr. David, President  
GKBI, 15<sup>th</sup> floor  
Jl. Jend. Sudirman kav 28  
Jakarta 11210  
Tel: 574-0089, Fax: 578-52784  
[www.kufpec.com](http://www.kufpec.com)

### **LIRIK PETROLEUM**

(Lirik EOR)  
Mr. Adi Satrya Sulisto, General Manager  
Satmarindo Bldg. 2<sup>nd</sup> floor  
Jl. Ampera Raya 5, Jakarta 12560  
Tel. (021) 780-5000, Fax: (021) 780-0630



### **LUNDIN OIL & GAS**

(Blora, Banyumas, Sareba)  
Mr. Hendrew Halber, General Manager  
Plaza Great River 8th floor,  
Jl. HR Rasuna Said Kav. X-2, Jakarta 12950  
Tel. (021) 526-2611, Fax: (021) 536-622  
[www.lundin-petroleum.com](http://www.lundin-petroleum.com)



### **MEDCO ENERGI**

(PSCs: Sanga-Sanga, C and S. Sumatra, Pasemah, Barisan/Rimau, Tomori, Samboja, Toili, Yapen, Bengara I Senoro-Toili JOB)  
Mr. Lukman Mahfoedz, President Director  
Menara Bidakara, 8<sup>th</sup> Floor  
Jl. Jend. Sudirman Kav. 71-73,  
Jakarta 12190  
Tel: (021) 8399-1010, Fax: (021) 8399-1011  
[www.medcoenergi.com](http://www.medcoenergi.com)

## APPENDIX 17: OIL COMPANIES IN INDONESIA

### **PEARLOIL**

(PSCs: Salawati Basin, Salawati Island, West Salawati, Sebuku, Tungkal, Bulu; Jambi JOB/EOR)

John Grant, President Director

Wisma Pondok Indah 2, Suite 800&900

Jl. Sultan Iskandar Muda Kav V TA

Jakarta 12310

Tel: (021) 759-22830, Fax: (021) 759-22831

<http://pearlenergy.com>

### **PELANGI HAURGEULIS RESOURCES**

(Haurgeulis)

Mr. Hatta Hadade, General Manager

Bumi Daya Plaza, 23<sup>rd</sup> floor

Jl. Imam Bonjol No. 21, Jakarta 10310

Tel: (021) 390-2905/6, Fax: (021) 230-5722

### **TRADEWINDS OIL AND GAS**

(PSC: N. Tanjung; TACs: Ramok & Senabing, Diski, Sukatani; Ogan Komering JOA)

Mr. Andi Rahmanudin Noor, General Manager

Wisma Pondok Indah, Suite 508

Jl. Sultan Iskandar Muda Block V TA,

Jakarta 12310

Tel: 769-7386, 769-7387, Fax: 769-7388

[www.tradewindsoilandgas.com](http://www.tradewindsoilandgas.com)

Subsidiaries:

- Permintracur Petroleum
- Gulfstream Resources
- Radiant Energi
- Putra Kencana (Diski)



### **PETRONAS CARIGALI TG. JABUNG LTD.**

Mr. Azmeer Rawi, Acting General Manager

Bapindo Plaza, Citibank Tower, 27<sup>th</sup> floor

Jl. Jend. Sudirman Kav. 54-55, Jakarta 10270

Tel: 526-6661, Fax: 526-6760

[www.petronas.com.my](http://www.petronas.com.my)

### **PETRONAS REPS OFFICE INDONESIA**

Mr. Ismail Rahman, Country Manager

Jl. Tulodong Bawah No. 1A,

Kebayoran Baru, Jakarta 12180

Tel.: (021) 526-6782, Fax. (021) 527-7228



### **PETROCHINA INTERNATIONAL COMPANIES IN INDONESIA**

(PSCs: Bangko, Selat Panjang, Salawati Basin, Salawati Island, Bangko, Jabung, South Jambi B; Tuban JOB)

Mr. Wei Zhigang, President

Menara Kuningan, 17<sup>th</sup> floor

Jl. HR Rasuna Said block 27

Jakarta 12940

Tel: 579-45300 Fax: 579-45301

[www.petrochina.com.cn](http://www.petrochina.com.cn)



### **PREMIER OIL**

(PSCs: Natuna Block A, Kakap)

Mr. Peter Mills, President

BEJ Building, 10<sup>th</sup> floor, Tower I

Jl. Jend. Sudirman kav 52-53

Jakarta 12190

Tel. 515-1800, Fax: 515-1900

Head Office:

Premier

23rd Lower Belgrave St.

London SW1W OMR

Tel: (44) 207-7301111, Fax: (44) 207-7304696

[www.premier-oil.com](http://www.premier-oil.com)



### **SANTOS PTY LTD**

(PSCs: Bawean, Brantas, Donggala, Madura Offshore, North Bali I, Papalang, Popodi, Sampang, Warim),

Mr. Eko Lumadjo, General Manager

Ratu Plaza Office Tower

Jl. Jend. Sudirman Kav. 9, Jakarta 12970

Tel: 2750-2750, Fax: 720-4503

[www.santos.com.au](http://www.santos.com.au)



### **SERICA ENERGY**

(PSCs: Asahan, Biliton, Lematang; Glagah Tambuna TAC)

Mr. Alastair Coulthard, Managing Director

Plaza Aminta, 3<sup>rd</sup> floor

Jl. TB Simatupang kav 10, Pondok Pinang

Jakarta 12310

Tel: (021) 759-15202, Fax: (021) 759-15207

[www.apd@serica.com](mailto:www.apd@serica.com)

## APPENDIX 17: OIL COMPANIES IN INDONESIA



### **PT SHELL INDONESIA**

Mr Darwin Silalahi, Country Chairman  
Gedung Ratu Prabu I, 3-7<sup>th</sup> floor  
Jl. Letjen. TB Simatupang Kav. 20,  
Jakarta 12560  
Tel: 7883-8838, Fax: 7884-9676

Head Office:  
Shell Petroleum Maatschappij  
30, Carel Van Bijlandtlaan  
The Hague, The Netherlands  
Tel: (00131) 703-779-111  
Fax: (00131) 703-776-540  
[www.shell.com](http://www.shell.com)



### **SINOPEC INT. PETROLEUM**

(PSC: Binjai)

Mr. Wang Zhong Ying, General Manager  
Mandiri Tower, 19<sup>th</sup> fl. Bapindo Plaza  
Jl. Jend. Sudirman Kav. 54 – 55  
Jakarta 12190  
Tel. 526-7511, Fax: 526-7512  
<http://english.sinopec.com/index.jsp>



### **STAR ENERGY**

(PSCs: Banyumas, Kakap)  
Mr Bret Mattes, CEO  
Wisma Mulia 50th Floor  
Jl. Jendral Gatot Subroto No.42  
Jakarta 12710  
Tel: (021) 5290-6060, Fax : (021) 52906050  
[www.starenergy.co.id](http://www.starenergy.co.id)

### **TALISMAN (ASIA)**

(Nila PSC, Corridor PSC/TAC, Ogan Komering JOB,  
Tanjung Raya EOR)  
Mr. Ron Aston, General Manager  
Belt Way Office Park, 8<sup>th</sup> floor  
Jl. TB Simatupang 41  
Jakarta 12550  
Tel: 782-1001, Fax: 782-2002  
[www.talisman-energy.com](http://www.talisman-energy.com)

Head Office:  
Talisman Energy Inc  
Suite 2400-855, 2<sup>nd</sup> Street S.W  
Calgary, Alberta, T2P 4J9, Canada

Tel: (0011) 403-2371234  
Fax: (0011) 403-2371902



### **TOTAL E & P INDONESIE**

(PSCs: Offshore Mahakam, Saliki, North  
Bali ;Tengah JOB)

Mr. Philippe Armand, President & GM  
Jl. H.R. Rasuna Said C11-14, Jakarta 12940  
Tel: 523-1999, Fax: 523-1888  
[www.total.com](http://www.total.com)

Head Office:  
Total Indonesie Paris  
Tour Total 24 Cours Michevet  
La Defence, Puteaux 92069, Paris  
La Defence Cedex, France  
Tel: (331) 4135-4000; Fax: (331) 4135-4291



### **VIRGINIA INDONESIA CO (VICO)**

(Sanga-sanga PSC)

Mr. Chris Phillip, President & CEO  
Wisma Mulia, 4<sup>th</sup> floor  
Jl. Gatot Subroto kav 42  
Jakarta 12710  
Tel: 523-6000; Fax: 523-6100  
[www.vico.co.id](http://www.vico.co.id)



## APPENDIX 17: OIL COMPANIES IN INDONESIA

### APPENDIX 17.2: SELECTED OIL FIELD SERVICE COMPANIES

#### **APEXINDO PRATAMA DUTA TBK**

Ir. Hertriono Kartowisastro  
President Director  
Medco Building, 2nd -3rd Floor  
Jl. Ampera Raya No. 20, Jakarta 12560  
Tel.: (021) 780-0840, Fax:(021) 780-4666  
[www.apexindo.com](http://www.apexindo.com)

#### **BAKER ATLAS INDONESIA**

Mr. Ivo Nuic, President Director  
The Garden Centre, 6th floor, Suite 07  
Cilandak Commercial Estate  
Jl Cilandak KKO, Jakarta 12560  
Tel: 780-0737, Fax: 780-0790  
[www.bakerhughes.com](http://www.bakerhughes.com)

#### **BINAKARINDO YACO AGUNG**

Mr. Tjahyadi Sukinata, Director  
Jl. P. Jayakarta No. 42, Jakarta 10730  
Tel. 629-6166, Fax: 639-8111

#### **BORMINDO NUSANTARA**

Mr. Harly Saleh, President Director  
Jl. Pakubuo VI No. 1A, Jakarta 12120  
Tel. 725-6156, Fax: 726-2077

#### **DOWELL SCHLUMBERGER**

Mr. David Tournadre, President Director  
16th Floor Sentra Mulia  
Jl.H.R.Rasuna Said Kav X-6 No 8  
Jakarta 12940  
Tel: (021) 252-0546, Fax: (021) 522-9157  
[www.slb.com](http://www.slb.com)

#### **ELNUSA GEOSAINS**

Mohammad Jauzi Arif, President Director  
Jl. Letjen. T.B. Simatupang Kav. IB  
Jakarta 12560  
Tel: 7883-0866, Fax: 7883-1072  
[www.elnusa.co.id](http://www.elnusa.co.id)

#### **GEOSERVICES INDONESIA**

H.L. Ong, DSc., Representative  
Jl. Setiabudi 79-81, Bandung 40153  
Ph. (022) 203-1316, Fax. (021) 203-1198  
[www.geoservices.co.id](http://www.geoservices.co.id)

#### **GRANT GEOPHYSICAL INDONESIA**

Mr. Craig Walker, Regional Manager  
Ratu Plaza Office Tower, 30th Floor  
Jl. Jendral Sudirman 9, Jakarta 10270

Tel: (021) 720-7509, Fax. (021) 720-7689  
[www.grantgeo.com](http://www.grantgeo.com)

#### **HALLIBURTON INDONESIA**

Mr. Mark Phillips, President Director  
Cilandak Commercial Estate  
Jl. Cilandak KKO, Jakarta 12560  
Tel: (021) 780-1100 Fax: (021) 780-1154  
[www.halliburton.com](http://www.halliburton.com)

#### **IMECO INTER SARANA**

Mr. Tanu Wijaya, Director  
Jl. Ampera Raya No. 9-10, Jakarta 12550  
Tel. (021)780-8068 Fax: 780-8064 780-8055/64

#### **MCDERMOTT INDONESIA**

Asan Sofian, Area Manager  
Wisma Tugu II, 5th Floor  
Jl.H.R. Rasuna Said Kav C-7/9  
Kuningan, Jakarta 12940, Indonesia  
Phone: (021) 5208611/8628 Fax: 520-8607

#### **PATRA DRILLING CONTRACTOR**

Mr. Hasanudin, President Director  
Jl. Kemang Raya No. 59, Jakarta 12730  
Tel: 7179-1478, Fax: 7179-1263

#### **SANTA FE SUPRACO**

Mr. Kaustubh Dighe, President Director  
Plaza Aminta  
Jl TB Simatupang kav 10  
Jakarta 12310  
Tel: 759-14550, Fax: 759-14551

#### **TRIPATRA ENGINEERS & CONSTRUCTORS**

Mr. Pandri Prabono, Pres Dir  
Jl. RA. Kartini No. 34, Jakarta 12430  
Ph : (021) 750-0701, Fax. (021) 750-0700  
[www.tripatra.com](http://www.tripatra.com)

## APPENDIX 17: OIL COMPANIES IN INDONESIA

### APPENDIX 17.3: INDONESIAN OIL AND GAS ASSOCIATION



#### **Indonesian Petroleum Association (IPA)**

Wisma Kyoei Prince, 17<sup>th</sup>, Suite NO. 1701  
Jl. Jendral Sudirman Kav. 3, Jakarta 10220  
Tel: 572-4284, 572-4285, 572-4286 Fax: 572-4259  
Website: [www.ipa.or.id](http://www.ipa.or.id)

#### **IPA Board Members**

President : Roberto Lorato (Eni Indonesia)  
Vice Presidents : Ron Aston (Talisman Energy Inc)  
Sammy Hamzah (Ephindo)  
Secretary : Trond Erik Johansen (ConocoPhillips Indonesia Inc.Ltd)  
Treasurer : Philippe Armand (Total E&P Indonesie)  
Directors : Hirohisa Ota (Inpex)  
Chris Newton (Energi Mega Persada Tbk)  
Rashid I. Mangunkusumo (Medco Energi International Tbk)  
John Minge (BP Indonesia)  
Gary Ford (Anadarko Indonesia Co)  
Terry Stephen McPhail (ExxonMobil Oil Indonesia Inc)  
Steve W Green (Chevron Indonesia Co)  
Exec Director : Suyitno Patmosukismo (Energi Mega Persada)  
Exec. Assistant : Wursitaningari



#### **Indonesian Gas Association**

Mr. Anton Tjahjono, Chairman  
C/o Pertamina Upstream Directorate  
Kwarnas Pramuka Building, 5th floor  
Jl.Medan Merdeka Timur no.6  
Phone: (021) 3502150 ext 1517  
Website: [www.gas.or.id](http://www.gas.or.id) ; email: [tjahjono@cbn.net.id](mailto:tjahjono@cbn.net.id)



#### **The Society of Petroleum Engineers (SPE)**

Peter Adam, Chairman  
Sentra Mulia Building, 16<sup>th</sup> floor  
Jl. H.R. Rasuna Said Kav. X-6 No. 8, Jakarta 12940  
Phone: (62-21) 522-7050 ext. 253 Fax: (62-21) 529-92253  
Website: <http://java.spe.org> ; email: [spe@jakarta.oilfield.slb.com](mailto:spe@jakarta.oilfield.slb.com)



#### **INDONESIAN ASSOCIATION OF GEOLOGISTS (IAGI)**

Gedung Mineral & Barubara, 6th floor  
Jl. Prof. Dr. Soepomo, SH., No. 10, Jakarta 12870  
Phone/Fax: (62-21) 8370-2848  
Website: [www.iagi.or.id](http://www.iagi.or.id); email: [iagisek@cbn.net.id](mailto:iagisek@cbn.net.id)

#### **Oil and Gas Drilling Association**

Bambang Purwohadi, Chairman  
Jl. Gandaria III/5, Kebayoran Baru, Jakarta 12130  
Tel: 722-2088, Fax: 725-3539  
Website: [www.apmi-online.com](http://www.apmi-online.com) email: [apmi@link.net.id](mailto:apmi@link.net.id)